THE AMERICAN JOURNAL of PSYCHIATRY

VOLUME 110
NUMBER 8
FEB. 1954

1954 Annual Meeting
Kiel Auditorium
St. Louis, Missouri
May 3-7, 1954

Official Organ of
THE AMERICAN PSYCHIATRIC ASSOCIATION

THE AMERICAN JOURNAL OF PSYCHIATRY

VOLUME 110 FEBRUARY, 1954 No. 8

Published by

THE AMERICAN PSYCHIATRIC ASSOCIATION

1601 EDISON HIGHWAY, BALTIMORE 13, MD.

AMERICAN JOURNAL OF PSYCHIATRY

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1. Vander Veer, A. H., and Reese, H. H. Treatment of schizophrenia with insulin shock. Am. J. Psychiat., 95: 271, Sept. 1938.

Abbreviations should conform to the style used in the Quarterly Cumulative Index Medicus.

The American Journal of Psychiatry, formerly the American Journal of Insanity, the official organ of The American Psychiatric Association, was founded in 1844. It is published monthly, the volumes beginning with the July number.

The subscription rates are $12.00 to the volume: Canadian subscriptions, $12.50; foreign subscriptions, $13.00, including postage. Rates to medical students, junior and senior internes, residents in training during their first, second, or third training year, and also to graduate students in psychology, psychiatric social work, and psychiatric nursing, $5.00 (Canada $5.50). Single issues $1.25.

Office of Publication, 1601 Edison Highway, Baltimore 13, Md.

Editorial communications, books for review and exchanges should be addressed to the Editor, Dr. Clarence B. Farrar, 216 St. Clair Avenue West, Toronto 5, Ontario, Canada.

Business communications, remittances and subscriptions should be addressed to The American Psychiatric Association, 1601 Edison Highway, Baltimore 13, Md., or to 1270 Avenue of the Americas, New York 20, N. Y.

Entered as second class matter July 31, 1911, at the postoffice at Baltimore, Maryland, under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized on July 3, 1918.

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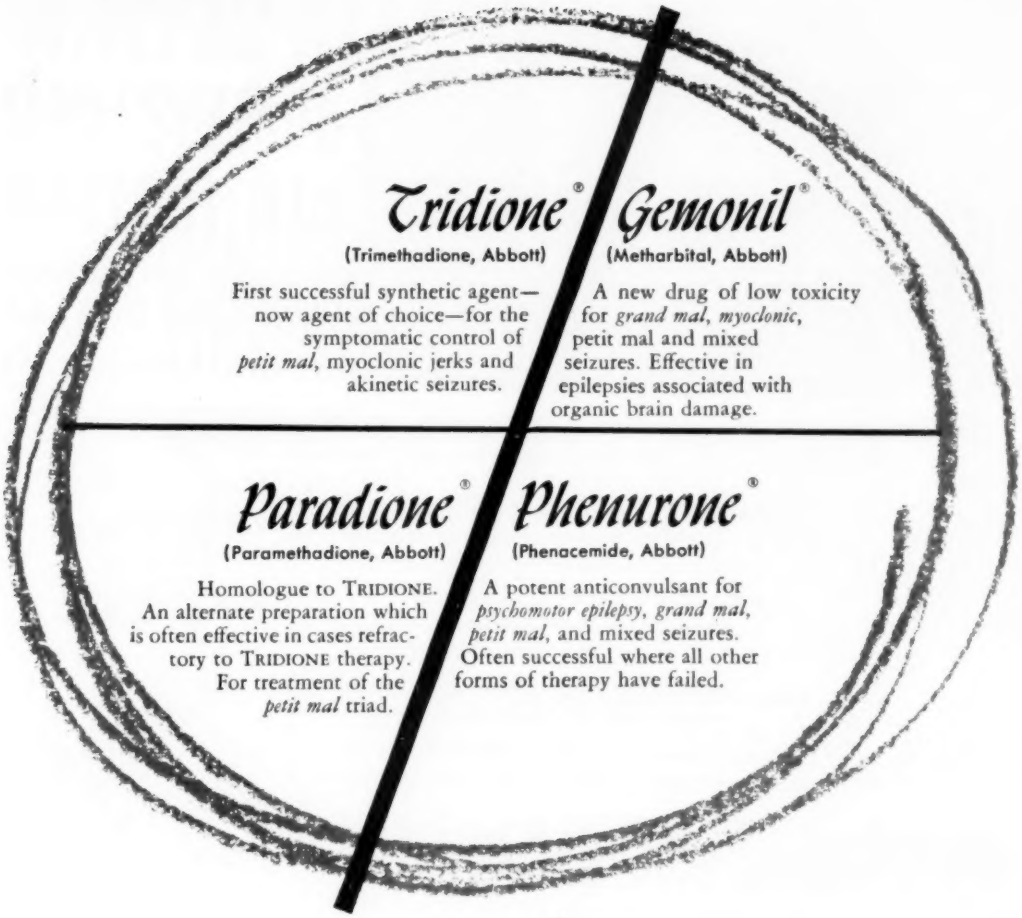

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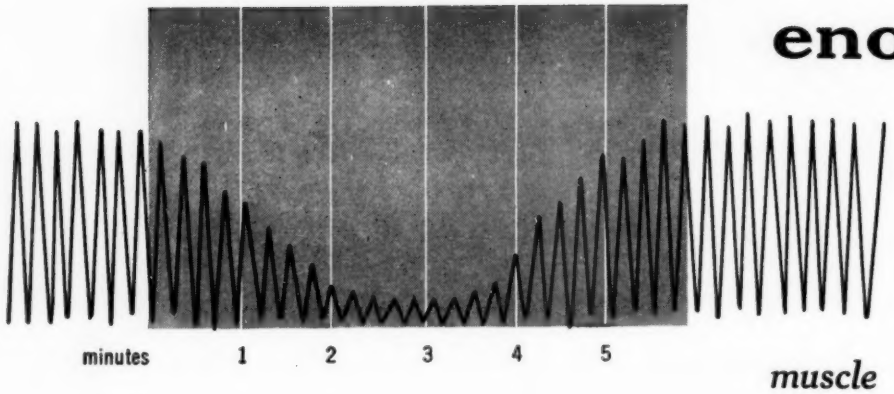

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RESULTS OF PSYCHIATRIC TREATMENTS[1] WITH A CONTROL SERIES

A 25-YEAR STUDY

EARL D. BOND, M.D., PHILADELPHIA, PA.

INTRODUCTION

For the important question of the value of insulin and electric shock therapies (and sulpha drugs and the antibiotics) the Pennsylvania Hospital has unusual—possibly unique—experience in which to find answers.

In the 25 years from 1925 to 1949 hospital conditions have changed little for patients, and diagnostic criteria have changed even less. In 1925-26 these psychiatrists were influencing treatment and diagnosis: Dr. Strecker and myself (from 1913); Dr. Kenneth E. Appel and Dr. Lauren H. Smith; Dr. Clifford B. Farr and Dr. Elmer Eyman; their influence was still strong in 1949. The superintendents of nurses, the psychologist, Dr. Westburgh, and the business director have covered the whole quarter century.

For all this time, patients' surroundings have been much the same. They have had the same opportunities for occupation, recreation, music; they have been cared for by trained nurses or nurses in training; most important they have received personal, individualized attention from psychiatrists.

The patients, almost without exception, have had interested families able to give detailed histories, and willing to respond to requests for follow-up accounts. The notes by physicians and nurses are full.

The plan for working up cases has been to check on one side of a cardboard the size of the record, the (1) symptoms shown by the patient in the attack for which he or she was admitted, (2) previous attacks, (3) admission and discharge dates, (4) duration of psychosis before admission, (5) condition on discharge, and (6) condition 5 years after admission—(often later). On the reverse side is an abbreviated family history and a chronological abstract of the patient's life.

At present all cases regarded as controls, 1925-34, have been abstracted in this way—all in order of admission, whether senile, general paretic, or manic-depressive or schizophrenic. The years in which new treatments were introduced, 1935-39, are being ignored. Of the years in which new treatments have been in operation 7 are completed, 1940-46, and the first comparison will be with the 10 years of controls against the later 7. Cases from the other 3 years will be done when follow-up work for 5 years can be completed.

In making diagnoses the A.P.A. definitions have been followed. To keep the types pure a large group of unclassed has been built up, to be divided later and separately reported upon.

I believe that I am led by curiosity in this inquiry. I do not feel that I have any vested interest in any kind of treatment. My overall curiosity was concerned with what a hospital like the Pennsylvania did for all mental patients of all kinds over a long period. I can speak for the same rather detached curiosity in Dr. Harold Morris, who has worked chiefly with cases from 1940 to 1947; even these cases I have had to review and make my own when it came to summarizing. Work on the individual cases backs up the original belief that we have a remarkably steady baseline. Comparison suffers to some extent because cases in the insulin-electric shock years cannot be followed as long as the controls; this trouble will be rectified by time and seems most important in the manic-depressive groups.

For constructive criticism I have to thank the research committee of the Pennsylvania Hospital and for advice and help I have turned to Dr. Arthur P. Noyes. The whole survey has been made possible by a grant from the Catherwood and Kirkbride Foundations.

After much thought I have decided to use the word "recovered" for patients in whom no defect is known. It means social recovery or more, with or without insight. "Much improved" means, as does "recovery", a con-

[1] From the Institute of the Pennsylvania Hospital. Supported by grants from the Catherwood Foundation and the Kirkbride Fund.

dition satisfactory to patient, relatives, and the family physician—but a certain minor defect is present, such as shyness, tenseness, or the inability to maintain close emotional relationships, or mild swings of mood. Together "recovery" and "much improved" are called "satisfactory results".

Schizophrenia

Because the Therapy Evaluation Conference of the A.P.A. and the U. S. Public Health Service is concerned first about schizophrenia, that illness will first be followed here and introduced by Table 1, which contains a comparison of results from the point of view of 5 years after admission to the Pennsylvania Hospital.

There are many comments, unusual situations, and longer-distance follow-up reports which will be considered later. At this point let me try to bring out main issues in this table.

In the later years, when insulin and electric shock were available, maintained recoveries led with 22% over 9% for the controls; satisfactory results led with 29% to 13% for controls.

The good showing of the later "shock" years is marred by a larger number of lost cases and a closer examination of these will follow. Fortunately, as a main object of this investigation was to build a group of controls, the number of lost cases among the pre-shock years is small.

A detailed discussion of the different categories follows.

Recoveries—Control Group.—Of these, 25 were well when they left the hospital and remained well; 5 recovered in the state hospitals to which they were transferred: one was so unusual that special mention follows.

This young man, as a child shy, overmodest and overwhelmed by his mother, had a schizophrenic break 12 months before entering the Pennsylvania Hospital. There he gained not at all and was taken by a cousin to the wilderness. Here he used a rifle, shot and cooked his own meals, lived on the country with his cousin. He made a remarkable recovery which he has held 19 years.

There are no qualifications in the reports about these patients, usually from the family physicians. "Five well and happy years." "Very well with no sign of trouble." All patients are at work, 2 as teachers. (However, 7 relapsed after the 5 years, having maintained health for 5½, 5½, 5½, 7, 8, 9 and 10 years respectively. One is known to have recovered from the relapse.)

Recoveries—1940-46 Group.—Of the 78 there were 67 who were well when they left the Pennsylvania Hospital and who maintained their health 5 years. Eight left this

TABLE 1

Schizophrenia

Results of Treatments—5 Years after Admission

Controls 1925-34		Insulin and EST available 1940-46
31	Recovery	78
4	Recovery, relapse, 2d recovery.	7
11	Much improvement with minor defect	17
0	Recovery; death after 3 years, no mental symptoms	1
28	Considerable or slight improvement with major defect	50
15	Recovery then relapse	45
31	No improvement to death	22
235	Unimproved, living	128
355	Total followed	348
	Lost—no record for 5th year	
	Condition at last report	
1	Recovered	13
1	Much improved	16
9	Improved	20
27	Unimproved	43
38		92
38		92
393		440

hospital unimproved and recovered in state hospitals: 2 recovered in private hospitals: 1 had EST every week for a year.

In most instances we have a flat statement from the family physician: "absolutely well and working for the last 10 years"; "not mentally disturbed over 9 years in spite of 2 pregnancies and nephritis"; "no return of symptoms at any time." One patient is active as a minister; 2 are industrial engineers; 1 is practising dentistry and 1, medicine; 1 has an important government position; 9, all under 21, finished college requirements and graduated. A husband's reply has interest: "She is perfectly well and is suing me for

divorce." Another comment is: "Unhappy but no trace of psychosis."

Of the 78 recovered cases, an insulin course often with EST as adjuvant was given in 53, electric shocks alone in 11, and no shock treatment in 15.

A patient who remained free of psychosis for 3 years and then died of a temporal lobe abscess has a line to herself.

Eight patients relapsed in the 6th year from admission; 5 are known again to have recovered; 1 was reported much improved after lobotomy; 2 committed suicide. Three patients relapsed in the 8th year: 1 is known to have again recovered. One patient relapsed in the 10th year and recovered. And 1 patient relapsed after 13 years in a manic attack with recovery. In all, 13 patients relapsed after the 5th year: of these 9 are known to have recovered.

CASES WITH RECOVERY, RELAPSE, AND SECOND RECOVERY IN BOTH GROUPS

The small group of 4 control cases were all patients who were up and down in the 5 years but well at the end of that time. Their illnesses were characterized by attacks and remissions. Others much like them are placed in the recovery—relapse category because the end of the 5th year caught them in an attack. The age range of these patients was from 14 to 17. (The first of these patients had a relapse in the 16th year; the second in the 7th year; the third in the 9th, 13th, 15th, 17th, 18th, and 19th years; the fourth in the 13th year.) The question of manic-depressive psychosis was raised in all 4 instances.

The age range in the 1940-46 group of 7 was 18 to 37 and the course of illness distinctly different from the controls. All had 1 relapse only in the 5 years and were well at the end of that time. Six of these patients went through a course of insulin shock therapy. (After 5 years 1 patient relapsed in the 7th year and recovered under EST; another relapsed in the 9th year.)

Much Improved with Minor Defect—Controls.—Some of these 11 patients were doing exceptionally well in difficult jobs but consciously or unconsciously were learning to avoid close emotional relationships. These patients showed work capacity; they were: "nearly normal," "not quite well," "nervous," "showed little peculiarities."

(After 5 years there occurred 1 relapse in the 9th year, a suicide in the 8th year, a relapse in the 15th year, and a relapse in the 12th year with insulin therapy and recovery into the 14th year.)

Much Improved with Minor Defect—1940-46 Group.—These 17 cases are like the controls. "Always a good worker, never entirely well"; "working well and raising a family but at times hypomanic." In 2 cases, and only 2, a tendency to be suspicious is considered a minor defect because of the patients' being described as "sociable, active, busy, happy" and as "jealous of his wife, hard at work, able."

(After 5 years 7 patients relapsed; 3 at 6 years, 1 at 7 years, 2 at 8 years, and 1 at 11 years; 2 of these again were much improved.)

Of the 17 cases that maintained a marked improvement for 5 years, 9 had insulin and 2 had electric shock. One patient who received no shock treatment died from cerebral hemorrhage 5½ years after admission.

Slight Improvement—Major Defect—in Controls.—All of the 28 patients spent most of the 5 years at home. But 1 "just eats and sleeps"; 1 "does the chores and is contented"; 1 hallucinates; 3 were in and out of state hospitals; 1 was "a symphony soloist but always in trouble."

Slight Improvement—Major Defect—in 1940-46 Group.—Again all 50 spent most of the 5 years at home. "Does the housekeeping but still paranoid"; "at work but paranoid"; "hears voices"; "no sustained interest"; 4 are described as "capable schizophrenics."

Twenty-one of these patients received insulin shock and 2 received electric shock.

Lost—in Control Group.—As a main purpose in this investigation is the building up of controls, it is fortunate that only 38 cases out of 393 have escaped the 5 year follow-up. Twelve of the 38 were followed for a year.

When last heard from 27 were unimproved, 9 improved, 1 much improved and 1 recovered. The 1 apparent recovery was in a school boy who after 5 months was doing well at home and school; the father's attitude makes further questioning inad-

visable. It seems likely that there would be a slight change in a downward direction if all follow-up could be completed.

Lost—1940-46.—Here there is a serious problem in 92 cases. Some help comes from the fact that of 29 recovered and much improved, 24 were followed for a year at home. Doctors Shurley and West [2] have established that recoveries in insulin-treated cases at the Pennsylvania Hospital diminish by 10% from the end of the first to the end of the 5th year. Table 1 shows that 10% of the total cases relapsed by the 5th year. One could then expect 9 (10% of 92) of the 29 recoveries and much improved to relapse. But in the 78 recoveries in the 1940-46 group there were 11 discharged as unimproved who later recovered—about 1 in 20—so that 4 new recoveries may be expected. From these inexact considerations, a net loss of 5 in the recovery column is likely, but even a loss of twice that number would not greatly change the percentages.

In satisfactory results the 1940-46 cases have much the better of it, 31% against 14%.

Of all 92 lost patients 26 only were treated by insulin while 25 received series of EST. One reason why 41 received no shock treatment, and also why the families did not keep in touch with hospital physicians is that 23 had a hospital stay of less than 1 month. Then 7 of the 23 had been ill from 6 to 22 years.

Of 26 "lost" insulin-treated 11 recovered or were much improved. Of 25 "lost" electric shock-treated patients 9 recovered or were much improved. Of 41 "lost" patients treated by other than shock methods 9 recovered or were much improved.

Unimproved at 5th year—Controls.—The 281 unimproved cases are made up of 3 divisions. The smallest is made up of 15 patients who recovered and relapsed. All 15 recovered about 16 years of health between them: 1 each had 2, 3 and 4 years, 8 had 1 year, and 4 had less than 6 months. In a second small division are those who died before the 5th year (31), 4 by suicide and 27 of intercurrent diseases. In the third division are those living unimproved at the 5th year (235). Of these 52 had been ill for 3 to 39 years before admission, and 27 of the 52 had been ill over 10 years before admission.

(Shortly after the 5th year 2 patients died of carcinoma, and from the 6th to the 9th year 5 more patients received insulin shock or metrazol to little or no effect. Two in 6th and 8th years had lobotomies and were made more quiet. One patient had insulin in the 8th year, metrazol in the 9th, EST in the 18th and lobotomy in the 20th year; after all these measures she improved slightly in the hospital to which she had been taken.)

One patient deserves a paragraph to herself. After 12 years of hospitalization (she was "split in two") she was given metrazol in a state hospital, promptly recovered and has been fully well, happy, efficient, winning promotion after promotion for 9 years. This patient is both a control case and an example of recovery after shock therapy.

Unimproved—1940-46.—Here there is a sharp contrast to the controls in the total of 195 unimproved cases. The first division, of recovery and relapse, is 45 instead of 15; the patients recovered 96 years of health, an average of about 2 years each as compared to about 1 year in the controls: 20 had 3 or 4 years when they were "up and down" and "in and out of hospitals." In this group 35 received an insulin course and 6 an EST series, with 4 having no shock treatment.

(Again in contrast to the controls, where only one recovery came after the follow-up period, 4 of these 1940-46 patients later recovered and 1 was able to be a clerk in a store—"not fully well"; all of these could be followed for 8 years.)

The second division of unimproved to time of death is not very different from the controls. There were 5 suicides. There were 2 insulin deaths at this hospital. The other deaths were from intercurrent diseases except 1 from "malnutrition" that was due to the psychosis.

In the third division there are 128 cases to be compared to 235 controls, all patients living and unimproved. Of the 128 there were 38 who had been ill from 3 to 30 years and 2 apparently for lifetimes, while 19, counting the lifetimes, had been ill over 10 years before admission.

Of the 128 cases, 87 received insulin treat-

[2] An unpublished article.

ment at the Pennsylvania Hospital, as always supported by EST or metrazol when supposed necessary. Others received insulin or EST at other hospitals. Of 41 patients who received no insulin here 11 were removed in a few days; 12 had been sick over 5 years; 4 had had shock treatments just before admission; and one was ill with TB. Three were mentally defective.

(After the 5 year period, 9 patients were lobotomized in other hospitals without benefit; and 8 more after lobotomy, including 1 in the Pennsylvania Hospital, showed improvement in the direction of "more tranquil", "better and able to work", "able to live at home", "easier to manage", "paranoid but does not care".

One patient had intensive psychotherapy for 3 years with no gain to the 5th year. Another escaped from a state hospital and killed a fellow patient.)

DURATION BEFORE ADMISSION

In several cases duration was not established (See Table 2).

The controls and the shock available groups had practically the same number of cases that had durations at admission of 18 months or less, and of the controls 27, and of the latter group, 60 recovered—12% and 27% respectively.

The controls were loaded with 54 cases over 6 years (6 to 29 years) in duration and of these 1 recovered; the later group had 35 over 6 years (6 to 29 years) in duratiion and of these 4 recovered.

Most estimates of duration must be uncertain. The family tries to give the time at which the symptoms bothered and alarmed them. But psychiatrists are puzzled by the problem of insidious onsets: did the illness begin with a slight turn toward seclusiveness or preoccupation, or did psychosis begin with a late outburst of violence or hallucinosis? In the unknown duration group there are some in the pattern "10 years or 1 month", "17 years or 5 days". Also in the unknown group are 3 patients from 12 to 16 years old who are said to have had symptoms "from birth".

Table 3 shows the 4 large results for the end of the hospital residence, 1 year later, and 5 years from the time of admission. Noticeable is the tendency of the control group toward stability except for the drop in the "improved" group. Also noticeable in contrast is the drop in recoveries over the 5 years in which shock treatments were available.

TABLE 2

DURATION BEFORE ADMISSION

	Controls 1925-34			Shock available 1940-46		
At 5th year	18 mo. or less	19 mo. to 5 yrs.	6 yrs. or more	18 mo. or less	19 mo. to 5 yrs.	6 yrs. or more
Recovered	27	3	1	60	13	4
Rec.-relapse-rec.	4	..				
Much improved	7	1	1	14	3	0
Improved	12	10	4	27	13	10
Rec.-relapse	11	3	0	35	5	2
Unimproved	155	63	48	78	52	19
	216	80	54	220	86	35

SUMMARY

1. This report on schizophrenia is a first step in building up a control group of the results of hospital psychiatric treatment. First shown are 393 consecutive schizophrenia patients admitted in 1925-34 before the coming of any shock treatments.

2. A comparison is made with 440 consecutive schizophrenic patients admitted in 1940-46 to the same hospital conditions but with insulin and electric shock series available and frequently used.

3. The shock treatments seem to be a push in the upward direction in schizophrenia: there are more recoveries sustained to the 5th year, more slightly improved, fewer unimproved, many more recovered and relapsed

in the 5 years, and more recovered in the group that could not be followed.

4. Relapsed cases, both in and later than the 5th year period, raise the question as to whether shock treatments are enough. The fact must be taken into account that the 1940-46 patients had all the adjuvant hospital treatment that was given to the earlier control patients. Also the later patients had heard of and often seen the striking changes following shock treatments. One of the patients had been for 10 years in the hospital, the most obvious, regressed, typical schizophrenic: after a course of insulin he became a normal appearing, pleasantly talkative individual for a week and then he again regressed. The impact of the week's change on patients and nurses was powerful.

5. In the first table of results are included cases whose long duration before this hospitalization or treatment put a tremendous burden on therapy. In the control group 11 cases had run 6 to 7 years, 15 cases had run 8 to 10 years, 12 cases had run 11 to 15 years, and 10 cases had run 16 to 29 years. In the 1940-46 group 3 cases had run 6 or 7 years, 10 cases had run 11 to 15 years, and 7 cases had run 16 to 38 years.

6. The shorter the duration before therapy the better the results—with this truism goes the disturbing thought that the shorter the duration the more uncertain the diagnosis.

7. More patients recover and stay well under shock therapies but also more recover and relapse.

TABLE 3

RESULTS FOR THE END OF HOSPITAL RESIDENCE

1925-34				1940-46		
On discharge	1 yr. later	5 yrs. from admission		On discharge	1 yr. later	5 yrs. from admission
53	31	46	Recovered & much improved..	173	166	103
14%	9%	13%		39%	26%	23%
99	58	28	Improved	91	78	50
6	14 *	31 *	Died	5	12 *	22 *
235	265	250	Unimproved	171	149	173
393	368	355		440	405	348
100%	100%	100%		100%	100%	100%
0	25	38	Lost	0	35	92
393	393	393		440	440	440

* Including previous deaths.

TWENTY YEARS OF GROUP PSYCHOTHERAPY

PURPOSES, METHODS, AND MECHANISMS [1]

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INTRODUCTION

The last 20 years have produced a specific therapeutic method in psychiatry, which not only presents a minor revolution in this specialty, but may have profound implications for our whole society. It is the group method, now commonly called group psychotherapy. The rapid expansion of this form of treatment has prevented, so far, an integration of the numerous reports into one body of knowledge. As long as practitioners draw only from their own experience and are involved primarily in their own ideas, scientific progress is hampered. The simple fact that different therapists get the same results through similar practices yet attribute them to different dynamics is sufficient justification for a careful consideration of all available reports and interpretations. The divergence of interpretations of identical experiences in group psychotherapy is not surprising since a similar situation prevails in individual psychotherapy. However, the group medium may be more conducive to scientific investigation than individual treatment which does not permit a replication of therapeutic phenomena. No two individuals are alike; but many group situations and group interactions are sufficiently similar to provide a testing ground for theories and methods and their scientific analysis and evaluation.

A comparative study of the literature cannot fail to contribute to mutual understanding between group therapists, to consideration of common problems, and to clarification of the dynamics involved. For these reasons we have surveyed about 500 papers in order to extract information that may contribute to the unification and integration of group psychotherapy, and to catalogue and summarize some of the dominant ideas in this rapidly expanding field. Despite best intentions to be impartial in reporting, we had to be judiciously selective in our reading, since much of the literature is repetitious and concerned merely with random unsystematized clinical observations. Some abstraction and simplification is mandatory in such an undertaking which deals often with complex thoughts and complicated ways of expression. We do not yet have a common language nor a generally accepted system of evaluation to establish a common denominator that would make it possible to compare statements and observations in their identity or divergence.

HISTORICAL REVIEW

Group psychotherapy is probably as old as man. The cathartic effect of the theatre was noted by Aristotle. The formal treatment of psychiatric patients in groups is of much more recent origin. As Hulse(34) and Dreikurs(19) pointed out, the earliest formal group therapy was probably conducted by Anton Mesmer whose hypnotic sessions excited the Paris of Benjamin Franklin. Another reference to the early use of the group method is made by Klapman(41) who reported that Camus and Paquiez(12), pupils of Dejerine, discovered that patients with nervous disorders improved more rapidly if treated in groups.

But group psychotherapy is fundamentally a product of the twentieth century. Pratt (71) is notable for his attempts, undertaken at the beginning of the century, to treat tuberculous patients in groups. He was probably unaware at that time of having pioneered a new approach to human problems.

The early period of group psychotherapy may be dated from 1900 to 1930. During this time the major steps toward a systematic use of the group method, called at that time "collective councelling," were made in Europe. Dreikurs(19) reports the early efforts of collective therapy by Wetterstrand

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with hypnosis, Schubert with stammerers, Hirschfeld with sexual disturbances, Stransky with neurotic patients, and Metzl(59) with alcoholics. In Russia, Rosenstein, Guilarowsky, and Ozertovsky(66) used the group method. In Denmark, Joergeson used action methods with psychotics(32).

Alfred Adler(2), in his child guidance clinics, was probably the first psychiatrist to use the group method systematically and formally. Moreno(60) started group therapy around 1910, using techniques completely unrelated to the concepts and practices of individual therapy; he later developed a theoretical framework, sociometry, for the group approach.

The development of the group method in Europe never reached a stage of organizational integration. Psychiatrists who used it worked independently, hardly taking notice of each other. With the advent of totalitarianism, group methods were completely abandoned. Only after the war were they resumed. This points to a correlation between the use of the group method and democratic evolution. It is not surprising, therefore, that the development of group psychotherapy shifted to the United States and advanced rapidly, far ahead of any other country. Group psychotherapy is essentially a democratic procedure, and its use reflects the political climate of a nation. It cannot flourish except in a free atmosphere. It needs a unique social climate, and, in turn, creates one(20).

The rapid development in the United States began about 20 years ago. Before then very few instances of the use of the group method were reported; besides Pratt, who probably was the first to use it in this country, were Burrow(11), Emerson(23), Lazell(47), and Marsh(58). In 1931 Moreno(62) coined the term "group psychotherapy", giving the new method its formal name. But it was not until 1936 that the output of papers on this subject increased with geometric proportion. Geller(29) gives the figures of this continuous growth of interest. From 1900 to 1919, 11 papers relating to group treatment were published in this country; in the next decade, 20; and some 90 papers appeared in the 'thirties. Between 1940 and 1949 over 500 papers were presented in the various scientific journals. Now more than 125 papers are published annually; and present literature on group psychotherapy includes over 1,400 items.

We have no reliable estimate of the number of therapists in this country who use the group method; but more than 100 have published 2 or more papers on the subject. Half of the nation's mental hospitals use group psychotherapy. This development inevitably led to the formation of professional societies. We now have 2 national organizations, both publishing journals exclusively devoted to group psychotherapy, with training institutes and local conferences. Group psychotherapy has come of age, 21 years after its christening by Moreno.

Purposes

We may distinguish 2 purposes or aims of group psychotherapy—its clinical value, the immediate purpose for which group methods are used, and its theoretical or philosophical implications. The rather newly recognized group dynamics have far-reaching significance for cultural and social problems.

The early writers were, for the most part, psychiatrists in mental hospitals who used the group method primarily as a substitute for individual therapy because of enormous case loads(42). Often an apologetic note, on the ground of expediencey, is evident in the early reports(88). This attitude has changed to one of confidence, for the new method has proved to be not only as effective as individual therapy, but in many respects superior to it(26).

The introduction and the expansion of group psychotherapy, particularly in mental hospitals, was possible only through a change in perspectives in regard to the curability of severe mental disorders. Previous pessimism gave way to cautious optimism aroused by the discovery of psychodynamics by Freud, Jung, and Adler, which led to analytic psychotherapy, the development of work therapy, the concept of the total push (Abraham Myerson). This optimism grew with the increased efficiency of new therapeutic procedures such as chemotherapy and electrotherapy. No longer satisfied with rendering custodial care, psychiatrists were willing to explore all possible therapeutic means. Stim-

ulated by the results of somatic treatment with insulin and electroshock, brain surgery, and the dynamics of psychotherapy, the potentialities of group methods were quickly recognized.

Specifically, group methods have been reported in the treatment of psychotics, neurotics, and patients with personality disorders. They have been used in mental hospitals(58), prisons(45), outpatient clinics (91), in child guidance(75), military retraining(50), general hospitals(31), and private practice(92). Indeed, group methods have been successfully applied in every psychotherapeutic phase from the management of physical disease(10, 13) to the improvement of family relations(22).

The second purpose of group psychotherapy is of more theoretical nature. As the study of individual psychodynamics was originally undertaken for the improvement of therapeutic efforts and led to research and discovery of mechanisms heretofore unknown; similarly, group psychotherapy began as a method of treatment, without the practitioners' knowledge of the dynamics involved. Later the emphasis shifted to investigation leading to the examination and study of the dynamics operating in the group. At present theoretical investigations have 2 divergent focal points. On the one hand, adherents of the various psychodynamic schools try to apply recognized psychodynamics of the individual to the group situation. The group process is seen as an extension of the dynamics operating within the individual. This injection of individual psychodynamics into group procedures may account for the divergence and frequent contradictions of interpretations given to identical observations. Characteristic reports of divergent dynamic schools are given by Schilder(77), Wolf (92), and Foulkes(27), of the psychoanalytic point of view; by Bierer(7) and Dreikurs(19) of the Adlerian viewpoint; by Gordon(30) and Peres(67) of the Rogerian client-centered philosophy.

On the other hand, investigations have revealed specific group dynamics, which are different from, although supplementary to, psychodynamics of the individual. Moreno has been the pioneer in the investigation of group dynamics, having provided this new field of research with a specific tool of investigation, namely, sociometry. Lewin(48) and Lippett(51) followed his lead,[4] surveying the effects of the social climate of groups, and establishing laboratories for group dynamics. Bales(3) has been experimenting with Interaction Process Recording and Powdermaker and Frank(70) have conducted the most comprehensive analytic investigation of group therapy yet reported.

The exploration of group dynamics inevitably led to a larger field of operation. Knowledge obtained from the experiences with therapeutic groups proved to be applicable to groups in general; methods providing solutions for the problems and conflicts of the members of the therapy group indicate approaches to solve social problems in general. Attempts have been made to use group methods in education(80), social clubs(6), penal institutions(1, 9), training schools (90), race relations(14), and industry(28). A tendency to move group therapy methods out of the clinics and psychiatric offices into society has emerged. Knowledge gained in the treatment of small groups of sick people can be applied to "normal" groups and their problems.

The ultimate purpose of group psychotherapy should be the development of techniques that can be utilized for the benefit of all group problems. Lewin, Lippitt, and White(49) have shown the beneficial effects of a democratic atmosphere on emotional and social adjustment as contrasted with authoritarian and anarchic groups. Study of the characteristic climate existing in a therapy group(20) indicates that an increase in the number of such groups in our society may have some effect upon the development of a type of human relationship essential for the development of democracy.

Methods

Group psychotherapy methods show a bewildering variety. It would be impossible to list them all. Many are minor variations of

[4] For clarification of this statement, it may be pointed out that Kurt Lewin published his first paper on the 3 types of group structure in Moreno's Journal, Sociometry, Vol. 1, 1938, after Moreno had described these concepts in the Sociometric Review in 1936.

main approaches. Several attempts have been made to construe classifications which would permit a meaningful and basic differentiation of the methods used. Before discussing the basic differences in the various methods, some specific techniques should be enumerated. There are, for example the use of drawings—Baruch and Miller (4), the textbook mediated therapy—Klapman (42), the blackboard procedure—Jacobson and Wright (38), the semantic approach—Kelley (40), the Northfield experiment with leaderless methods—Bion (8), and the leaderless panel method—McCann and Almada (56), psychodrama—Moreno (63), the therapeutic drama clubs—Schwartz (78), the social clubs—Bierer (7), the use of dramatics—Lassner (44), the multiple psychotherapy—Dreikurs (21), the use of puppets—Bender and Woltman (5), the play techniques—Shakow and Rosensweig (79), the activity group method—Slavson (81), the analytic method—Powdermaker, Foulkes, and Ezriel (69, 27, 25), hypnotherapy—Ennies (24), the self-help method—Low (53), and many others.

But upon deeper scrutiny, these various methods fall into patterns that lend themselves to classifications. One type of classification is based on the principle of a single dimension. Thomas (88) puts all therapy on a single bipolar continuum from repressive-inspirational to analytic. The methods reported by Pratt (71), Lazell (47), Low (52), and Klapman (43) are repressive-inspirational, while those used by Spotnitz (85), Ezriel (25), and Sutherland (87) are analytic. Luchins (54) establishes a dichotomy by distinguishing between authoritarian and laissez-faire methods. Renouvier (72), trying to reformulate Moreno's concepts, suggests a division of dogmatic and analytic methods. Slavson (84), too, suggests a dichotomy, distinguishing the activity method from analytic. Bierer (7), Harms (32), Hulse (34), and Peres (67) see 3 classifications in group psychotherapy. Hulse divides them into analytic, didactic, and inspirational. Peres distinguishes between class therapy, activity therapy, and therapy in a group. Harms makes a distinction on the basis of characteristics of the natural group, the artificial group, and group therapy through outside agencies. Bierer speaks of mass therapy, class therapy, and collective therapy.

Dreikurs (19) and Moreno (64) attempted classifications on the basis of multidimensions. Dreikurs sees 2 sets of distinguishing factors, one, the verbal versus the nonverbal approach, and the other, the directive versus the nondirective. Moreno suggests no less than 7 dimensions, based on the constitution of the group, the locus, the aim, the therapeutic agent, the form, the medium, and the origin.

Reviewing the various suggestions for classification and the methods as reported in the literature, 8 dimensions appear to us as a logical basis for placing any method of group psychotherapy in proper relationship to all others.

The first dimension is established by the role of the therapist, particularly by the amount of direction that he exerts. This dimension would have on its one extreme a therapist such as Low (52) who insists that his patients use a special language and think in terms *he* prescribes; on the other end would be a therapist like McCann (56) who removes himself physically from the therapeutic room, leaving his patients entirely to themselves. In between are the various more or less directive or nondirective methods. The determination of the amount of direction provided by the therapist would require careful investigation, since the therapist's own evaluation of his directiveness may not always be borne out by closer scrutiny. To a certain extent the group climate, to be mentioned later, is significant.

Our next dimension refers to the use of verbal communication. In the activity group therapy of Slavson (83) the spoken work is relatively insignificant, while in the nondirective treatment of Gordon (30) and Hobbs (33) all emphasis is on the spoken work.

The third dimension considers the type of interactions that take place in the group. They may be relatively limited, consisting mainly of the interaction of the therapist with the patients as in the case of the inspirational approach, as in lectures. Most frequently the interaction takes place between all participants, but may be mediated and controlled by the therapist. Some groups have no limits to the interaction, as in the leaderless group experiments of Bion (8).

The fourth dimension is provided by the

extent of formalism in the therapeutic procedure. The method used by Coffey(15) and associates provides for an internal logic of development so that sessions proceed along predefined lines. Similar procession of steps exists to a certain extent in the child guidance group techniques of Dreikurs(22). Even in Moreno's psychodrama, which emphasize spontaneity, some directing organization and general formal stages of procedure can be detected. In contrast, most methods show no form or organization. Each person speaks when and as he is inclined. This complete absence of any plan or organization is perhaps best expressed in the nondirective therapy.

The fifth dimension represents the content of the sessions. These may consist of introspective analysis of the patients on the one extreme, and on the other of mere activity as a reality testing device as used by Slavson (84). However, Slavson's dichotomy does not exhaust the possibilities. It would be more accurate to combine Slavson's and Hulse's(34) classification by distinguishing the analytic-introspective, the didactic-informational, and the inspirational-motivational method besides the objective behaviorial life-testing method. They all belong in the same dimension and may even be found alternately or concommitantly in many therapeutic procedures.

The sixth dimension depends on the ratio of patients to therapists. The class method can show a ratio of one therapist to a group of several hundred(58). In a mathematical sense the ratio is even more extreme in the leaderless group of Bion(8) or the round-table method of McCann(56), because there is no leader at all. A complicated situation exists in the nondirective method of Hobbs (33) where the therapist submerges himself in the group; consequently, there are as many patients as therapists.

In the multiple therapy as developed by Dreikurs(21), the therapeutic group consists of 2 therapists and one patient. Moreno goes even further; a dozen therapists, in the form of leader and auxiliary egos, may converge their efforts on one patient. In the usual round-table approach the ratio of therapists to patient varies from 1 to 5 to from 1 to 15, around 8 being the preferred ratio. Another development in this respect has been the multiple therapy method applied to the group, called the co-therapists method(4, 55).

The seventh dimension refers to the composition of the group: is the group limited and selected or open to all within a defined population? The selection of the members depends on the therapist's consideration for homogeneity or differences as the basis for the optimal functioning of the group. Very few therapy groups are nonselective and open to all members of a natural group such as the Chicago Community Child Guidance Centers(22) or group therapy among the congregation of a church(16).

The last dimension, and possibly the most difficult to clarify, refers to the atmosphere of the group. It can be democratic, anarchic, or authoritarian. The identification of a given method in regard to these 3 types is hampered by the emotional loadings of these terms. The designation of the group atmosphere by the therapist may be misleading; he may believe he is operating on one level, while actually functioning on another. To confuse the issue even further, the group atmosphere is not identical with the overt behavior of the leader. Consequently, we may have to distinguish between an existing atmosphere in the group and the approaches of the leader.

To give an example of the complexity of the issue: Low, like Klapman, uses a textbook and takes a very directive and rather authoritarian attitude. But the effects of such imposing procedures are most amazing. They lead to a form of group psychotherapy which no longer requires the presence of any therapist. Low's "Recovery" became a truly self-help form of group psychotherapy, where the patients help each other—a procedure that can be considered as highly democratic.

A study of this category of group atmospheres seems to be essential since a democratic trend seems to permeate all therapy groups. All group procedures imply the existence of a unique climate which is essentially democratic. The methods of group therapy flourish only in a democratic atmosphere, as has already been pointed out. It vanished in Europe with the advent of totalitarianism and increased in the United States at a time when the process of democratization and equalization (as in the relationships of men

and women, white and colored people, etc.) became highly accelerated.

These 8 dimensional classifications are suggested as a basis for an analysis of any method of group psychotherapy. Such a frame for classification is primarily important for research. A clear perception of the various factors operating in the diverse methods may contribute to the determination of the basic elements in the method. Our attempt to isolate factors is by nature incomplete. A factor analysis, based on the Q technique of Stevenson (86) should go a long way toward identifying the basic dimensions with which we are dealing in group psychotherapy.

Mechanisms

There can be no doubt that group psychotherapy is effective; but the question as to the nature of the effective dynamics is highly contested. Any effort to establish a theory of dynamics operating in group psychotherapy has to contend with a historical handicap. Since individual psychotherapy preceded group methods, it was only natural that the theoretical concepts formulated through the study of individual patients should be transferred to the group approaches. This application of an already established theory, considered by its proponents to be catholic and all-inclusive, may be called the molar approach. The molecular or inductive method of establishing a theory would be based on the observations and analysis of the group procedure.

It seems unnecessary to restate the theoretical considerations that the Freudians, the Adlerians, and the Rogerians, to mention the 3 dominant schools, have applied to group methods. Suffice it to say that they have found relatively little difficulty in applying their theoretical concepts to their observations with groups. Therefore, such mechanisms as transference, compensation for inferiority feelings, and acceptance, will not be discussed here.

It appears that Moreno was the first to formulate a theory of group dynamics, based on his theory of spontaneity and his evaluative method of sociometry. Lewin (48) and Lippitt (51) have followed in this path, attempting to study group behavior *in situ* and without the dubious benefit of prior conceptualization.

A search of the literature for over-all theoretical formulations of the mechanisms involved in terms of specific therapeutic agents reveals a strange lacuna, since the writers seem to avoid discussion of this crucial issue. If we attempt to reach integrated formulation based on impressions from reviewing the papers, we realize the need for an arbitrary approach which may constitute a preliminary effort toward integration. Only careful studies will permit a more accurate description and possible integration of dynamics as they are perceived by various therapists.

The first conclusion is the correlation of effectiveness of group psychotherapy with participation of subjects. This is substantiated by 2 reports of unsuccessful group psychotherapy. Sarlin and Benrezin (76) found lecture methods relatively ineffective, and Kahn, Buchmueller, and Gildea (39) reported disappointing results when group cooperation was not secured.

A second generally accepted mechanism is the effect of public disclosure. The early Christian church, the Oxford Movement, revivalists, Alcoholics Anonymous, have used open confession. The therapeutic effect of stating forbidden thoughts and guilty action seems to be similar to the cathartic effect of such revelations in individual therapy but with additional "feed-back" effects.

Another mechanism is "universalization" (68). This particular phenomenon occurs whenever the remark of one member of the group strikes a common chord in the others, so that they understand his feelings, realize their own identity with him, accept his ideas, and find that this universalization enables them to participate more freely. Universalization leads to group cohesiveness. Dreikurs (22) and Low (53) observed increased therapeutic effectiveness through the identification of their own problems with those of other members of the group. Rew (73) reports a reduction of tension concommitant with a feeling of belongingness and with an understanding of the problems of others.

Another therapeutic mechanism is educational. It seems to have 2 entirely different aspects (18). First is the increased ability to

absorb new facts that ordinarily are denied by defense mechanisms. But more important seems to be the unconscious incorporation of certain ideas that were previously unacceptable. The learning process and the ability to gain insight is facilitated by the interaction of the group members; patients respond more readily to stimulation from their fellow patients than from their therapist.

One mechanism certainly not present in individual therapy is the therapeutic effect of one member helping another. Several methods like Alcoholic Anonymous, Low's self-help, and others deliberately evoke mutual help. Assuming mutual responsibility counteracts pathological dynamics of emotional and social maladjustment. It dissolves the emotional isolation in which most people, but particularly psychiatric patients, have lived.

Another mechanism, also found only in group psychotherapy, is social reality testing. While in individual therapy the therapist is usually completely and often uncritically accepting, in group psychotherapy each member has to contend with the attitude of peers; consequently, each has the opportunity of testing himself in a situation that has real social meaning. Rome(74), among others, indicates the importance of reality testing which the group provides.

Finally, turning the group into a healing medium can be considered one of the most important mechanisms of group psychotherapy. As Moreno(60) states, problems arising from the group must be healed by the group. It is the peculiar group structure of modern society that intensifies the emotional isolation of modern man despite and perhaps, paradoxically, because of improved transportation, communication, and increased leisure time. Man's neuroses may be an expression of such social isolation; and the healing power of the group can well serve to offset such damaging cultural stimulations and effect closer social interaction. Only in a therapy group does modern man experience a status of social equality with others, in contrast to the inequality experienced in modern society with all its conflicts and tensions. It is only in a therapy group that deficiencies lose their stigma, no longer lessen social status, and thereby provide a sense of equality for all(20). In this sense, group psychotherapy has cultural and social significance.

Since the therapy group establishes cooperative attitudes and approaches not essentially found in the surrounding community, it becomes obvious that the group is a value-forming agent. This mechanism, frequently overlooked, needs considerable attention. Individual therapy was able to avoid the rather embarrassing issue as to the value changes implicit in any psychotherapy. Group psychotherapy will not be able to shunt its responsibility to investigate this element. All human values are of social nature; all social participation affects our value system, positively or adversely, reinforcing certain convictions and diminishing others. The normal group experience of an adult is generally limited in its ability to penetrate his already well-established and rigidly maintained value systems. In contrast, the impact of strong emotional social experiences as found in group psychotherapy is bound to have its effects on the value systems of each participant. Since the therapy group is fundamentally a democratic group, the values emerging from it are probably identical regardless of the therapist and the method used. They may have a definite impact on our total culture.

Conclusions

The field of group psychotherapy has been reviewed with the intention of clarifying its purposes, methods, and mechanisms. We cannot expect consensus at a time when group psychotherapy is still rapidly expanding and no objective integrative concept has evolved. It is inevitable that trying to summarize the extensive literature probably results in more questions raised than answers provided. As with many other therapies we are more certain of possessing an effective method than of knowing the reasons for its effectiveness. True enough, many individual therapists are sure that they know the dynamics with which they operate; but their findings and reports are so divergent and often contradictory, that a scientifically reliable answer seems to elude us. The integration of all available information into one body of knowledge would be a Herculean

task; but group psychotherapy may be able to accomplish what psychiatry has been unable to do—integrate the various dynamic theories into one body of scientific knowledge. It is the medium of group psychotherapy itself that may promote such long-overdue integration. The therapy group provides facilities for controlled observation that hardly exist in individual cases. Furthermore, a spirit of increased cooperation characterizes all those who have experienced group psychotherapy and benefited from it, patients and therapists alike. Group therapists seem to be willing to exchange their findings and—regardless of their orientation—discuss their observations in a give-and-take way, essential for scientific progress. In this sense psychiatry may experience a true revolution through the new methods it has invented for the treatment of patients.

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FOCAL STIMULATION THERAPY [1]

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The administration of convulsive therapy by electrical means has been found to be of great therapeutic benefit in the various forms of psychotic depression and certain other psychotic states. However, with the conventional technique, for inducing seizures, certain undesirable complications may occur, such as fractures, mental confusion, cumulative memory disturbance, and subsequent anxiety feelings concerning the treatment itself. Furthermore, the administration of a generalized seizure always entails certain hazards, particularly in persons with cardiac or cardiovascular disease or general debilitation due to advanced age. With the idea of reducing these complications and hazards, the authors studied the effects of electrically induced unilateral seizures. A preliminary report describing the original technique was published recently(1). Since then minor modifications of the technique have been employed which we shall present briefly.

The technique consists in the application of either sponge or flat metal electrodes to one side of the head approximately 3 to 4 inches apart and about 1 to 2 inches from the line of sagittal fissure. The electrodes are placed from 1½ to 2 inches equidistant from a line connecting the 2 auditory meati. When the electrodes were placed closer together, as in our original technique, a higher intensity of current was usually required to induce unilateral seizures or it was not possible to induce the seizure with the apparatus utilized. Placing the electrodes further apart overcame this difficulty and required less current to produce the focal fit. A continuous current is required for this treatment and therefore the use of the Cerletti-Bini technique, employing the predetermined voltage for only a fraction of a second, is not suited for this purpose.

We employed the Reiter apparatus (Model CW47 and CW47-B) with current selector knob in position 3. Since the electric current is painful, the patient is anesthetized with 5% solution of sodium pentothal immediately prior to the administration of the current (2). The preparation of the patient is essentially the same as for ordinary electroconvulsive treatment. No gag is required and no hyperextension or holding of the patient is necessary. After the current is turned on, it is gradually increased, usually up to 10 to 20 m. a., until a contralateral seizure begins, usually noted first in the upper limb. If the current is turned off at this point, the fit in the contralateral limbs will continue through the usual tonic and clonic phases and remain confined to the one side of the body, unless we wish to extend the seizure to the opposite side by prolonging the application of current (1). Treatments have been given at a frequency of 2 to 4 times per week. In most instances patients received a double focal application in which the fit was elicited first on one side of the body and then, after it subsided, on the other. However, these double contralateral seizures were tabulated as only a single treatment. The great majority of patients received a total of 10 to 20 treatments, although a few patients received fewer than 6.

RESULTS

A total of 30 psychotic patients have been included in this preliminary study and were diagnosed as follows: (1) 18 schizophrenia; (2) 6 involutional melancholia; (3) 6 manic-depressive psychosis of which 5 were of the depressed type and one in the manic phase.

In the schizophrenic group 6 patients showed substantial to complete remission of symptoms. These were all relatively acute forms of schizophrenia with paranoid manifestations and all patients had been adjusting at adequate socio-economic levels prior to their acute psychotic episodes. Two additional schizophrenics who had been subject to previous acute exacerbations of psychosis

[1] Read at the 109th annual meeting of The American Psychiatric Association, Los Angeles, Calif., May 4-8, 1953.

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and were not adequately adjusted to their surroundings in the "interval periods," responded only moderately to treatment. The other 10 patients were unimproved by the treatment. This group consisted essentially of chronic schizophrenics with poor prognostic outlook and long histories of inadequate adjustment.

In a group of 6 patients with involutional melancholia, only one responded after the tenth treatment. The remaining patients showed no response, although 4 did not receive more than 8 treatments. The administration of 1 or 2 grand mal treatments, after an initial course of the focal seizures, resulted in a rapid, persisting improvement which made additional grand mal treatments unnecessary. Of the manic-depressive patients, 3 of the depressed individuals showed remission of symptoms with fewer than 10 treatments, while the remaining 2 were unimproved, even though one received a total of 17 treatments. It should be noted that in this latter instance, only one grand mal treatment given after the 17 focal treatments resulted in an immediate complete therapeutic reaction. This same patient had previous generalized convulsive therapy on 4 different occasions when she had depressions and on each occasion required at least 6 grand mal treatments before showing definite persisting improvement. Inasmuch as this patient was 72 years old, we preferred to avoid grand mal seizures as often as possible. Our one manic patient exhibited no improvement after 9 focal treatments, but showed subsidence of symptoms after 2 grand mal reactions.

It is to be noted that a number of the patients in the involutional melancholia and manic-depressive groups were elderly persons suffering from various forms of cardiovascular disease or general debility and it was deemed advisable to avoid generalized convulsions whenever possible.

None of these patients exhibited any serious untoward complications, although a few side reactions were noted, most likely due to the pentothal effect. These included 3 instances of immediate post-treatment respiratory difficulty which subsided in several minutes; 2 patients exhibited marked crying reactions for several minutes after the treatment when the pentothal effect had partially worn off.

There were no fractures and no instances of back pain. An important aspect of the treatment is the relative absence of confusion and memory disturbance. Even in cases where a long series of the focal treatments were given, the memory showed relatively little or no gross disturbance. This contrasts sharply with the effect on the memory of the conventional convulsive treatment.

The effects of the focal treatment upon cardiac rhythm, pulse rate, blood pressure, and respiration are considerably less as a rule than those noted with the generalized convulsion.

Discussion

From our results it appears that administration of focal seizures is of therapeutic benefit in certain cases, particularly the acute paranoid schizophrenics and some of the psychotic depressions. However, it is quite obvious that focal unilateral seizures are less effective than generalized seizures; it may be that we are dealing with some type of "quantitative therapeutic factor" that is effected by the convulsive treatment. The question is raised therefore as to whether the administration of focal seizures *daily* might not be much more effective in producing desirable results. We were unable to do this with our group of patients, but are studying a number of patients at the present time with daily or even twice daily treatment.

Although more time is consumed in administering the focal treatment, as compared with the generalized seizure, it would seem that the risks are lessened with the administration of unilateral seizures, particularly in older or more debilitated patients.

The focal seizure would also appear to be indicated in certain acute paranoid schizophrenics who require not only the avoidance of mental confusion, for their best progress, but the avoidance of undue anxiety caused by confronting them with a "shock treatment" without preparatory anesthetization. Many paranoids, in their acute phase, when subjected to grand mal seizures, will react with violent hostility to the treatment and to the cumulative mental confusion; sometimes the projection mechanisms will be increased by grand mal seizures. These undesirable reactions apparently can be avoided with the use of pentothal for the focal treatment. It should

be stressed that patience is required in administering a long series of these treatments; the results are not as sudden or as dramatic as usually obtained with the use of grand mal convulsions.

Focal treatments may be used to start a course of treatment which could be completed by 1 to 3 grand mal seizures; the administration of the focal treatment apparently "creates an atmosphere" that will cause the patient to respond therapeutically to fewer of the grand mal seizures. In this connection we sometimes treat individuals whose livelihood depends upon a relatively intact memory. If such a patient can receive a course of perhaps 8 to 12 focal treatments, it may only require 1 or 2 grand mal seizures to produce the desired results. We, therefore, can have complete therapeutic benefit with minimal memory disturbance.

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SUCCESSFUL RESTORATION OF SCHIZOPHRENICS FOLLOWING LONG-TERM INTENSIVE PSYCHOTHERAPY[1]

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During 1952, 3 men suffering from schizophrenia and under treatment at The New York Hospital-Westchester Division for over 4 years were restored to a productive life in the community. One had been hospitalized for over 8 years. Analysis of the life histories of these men up to the time of leaving the hospital emphasized the subtle elements involved in the therapy of the schizophrenic, particularly those who are most deeply and seriously involved. This study stimulated interest in 10 other discharged patients who had responded successfully to treatment only after 4 years of hospitalization.

All of these patients were severely compromised by both heredity and environment. All had several siblings, parents or immediate collaterals who also suffered from serious psychiatric disorders; one having 10 members of his immediate family and collaterals who had been hospitalized or under other treatment for psychoses.

The analysis of the detailed life histories accumulated over years of intensive relationship with patients, relatives, and friends, has brought in clear focus many aspects of the developmental pathology of mental illness in general and thus leads us to measures directed toward correcting this pathology.

The early and severe emotional deprivation of this group of patients is outstanding.

When she was 4, Mary's father became psychotic and the parents were divorced when she was 12. The mother's interest in the patient was limited to the praise she received when displaying her pretty precocious only offspring. When Mary reached the 'teens and took the limelight her mother became openly rejecting and competitive. When 16 Mary was told by her family physician she should never marry as she had a "hereditary taint." Shortly after the daughter's marriage, her mother killed herself on Mary's birthday. Her relatives, as well as Mary, did not believe that the coincidence was accidental. There is good evidence to believe that Mary conceived her only child within 24 hours after the mother's suicide. Her illness began in late pregnancy and became acute in the post-partum period when she attempted suicide. For the first 3 years of hospitalization she was suspicious, excited, and had the delusion she was carrying "an Immaculate Conception."

Charlotte's father was too busy to do more than shower her with expensive gifts. Her mother was actively homosexual and rejected the patient except for sleeping with her when the father was away on his frequent business trips. She was "a queer child" at 7 and her psychosis was ushered in at 12 when she invited her 14-year-old brother to have sex relations with her; a fact he promptly announced before both parents at the next meal. At the time of the patient's admission the brother had been under psychoanalysis for 5 years. Six years of psychoanalysis, including 2 years in a hospital, preceded the patient's admission to The New York Hospital-Westchester Division. Through this period she acted out phantasied love affairs with various men famous in the entertainment field and tyrannized her whole family with her symptoms which were attempts to deny her homosexual strivings.

Bob was born in India and was brought up by native nurses while both parents were active in missionary work. When the parents were home, the atmosphere was one of strictness and prohibition; corporal punishment was frequent. Comfort and warmth he obtained only from his native nurses. When the patient was 13 the family came to the United States and even this warmth was taken from him. Coincident with this move, the father became invalided with paralysis agitans. His 2 brothers became as schizoid as did the patient in adolescence; one required hospitalization for a severe paranoid psychosis. The other brother, a well-known musician, must live a most restricted life. After marriage, and the birth of a second son, Bob became psychotic.

Sam's father loved his young son more deeply than he realized and rejected him abruptly when Sam went into adolescence, which was coincident with his mother's death. Sam became bitter and confused and sought a warm relationship with a professor who killed himself shortly thereafter. This led to an excited, paranoid illness in his late 'teens. The father had been under psychiatric treatment on several occasions. Ten members of the family had been under treatment for psychoses.

Jean was born with the cord tightly wrapped around her neck and resuscitation was difficult. She suffered repeated convulsions in her first 3 months and it soon became apparent she was spastic. Her mother, from a family where the women were dominant, took over the patient's care with great vigor. Jean was toilet-trained in record time and the mother as vigorously determined all other aspects of Jean's life, encouraging her in ambitions beyond

[1] Read at the 109th annual meeting of The American Psychiatric Association, Los Angeles, Calif., May 4-8, 1953.

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her capacities. The father hid his disappointment in his first born child by ignoring her and focusing this attention on the second daughter. At adolescence Jean became a daydreamer, but continued her plans to enter medical school. Shortly following college graduation she began to hear the voice of the bus driver who had befriended her in adolescence and rapidly became so excited and delusional hospitalization was necessary.

Hank's father was an aggressive, highly competitive, overbearing, and successful self-made man who demanded that his son pattern after him. However, he gave his son little support and positive encouragement and was actively critical and jealous whenever Hank succeeded where he had not. He tried to dictate each step of the patient's life. The mother was quiet and gentle, yet markedly overprotective and solicitous of her children. Hank was fearful from infancy, always avoided contact sports and was overconcerned about his body. In college, at examination time, he became depressed, hypochondriacal and had ideas of unreality. At 30, while in the army, he became panicked and paranoid over fear of retaliation from a superior officer he had once offended. In his acute illness he alternated between attempts at self-injury and homicide.

All these patients were apparently constitutionally limited in their capacities for close emotional relations with others. Besides this they were deprived of the experience of a warm and healthy relationship with parents with whom they might reinforce their capacities through identification. As Bob said, "I have always been in ignorance of human relationships." They displayed almost no evidence of identification with any group, were lonely individualistic and independent; lacked feelings of belonging and therefore a sense of loyalty. Yet all these patients were intelligent, well educated and had unusual cultural advantages.

In spite of the independence of their attitudes, these patients wanted to be liked and craved affection. All at some time during their treatment expressed their concern over their relative inability to be close to others, to know what they were feeling, and to know how to gain the respect and love of others.

Because of what, to them, were severely traumatic experiences of being rejected in childhood, they universally avoided close relations with others after adolescence. They often adopted patterns of behavior that actively antagonized others, if not assuming a neutral, coldly correct manner.

During the years of treatment these patients were guided and supervised while being helped through certain phases of development. A large staff in many different departments and under the leadership of the medical staff took a conscious and active part in the restoration of these patients. All those staff members who had a treatment relationship with the patient were aware of his historical background and the general and specific aim of treatment through daily staff conferences with the heads of each treatment service: the nursing service, physical education, occupational therapy, and physiotherapy, together with weekly conferences with the music department and librarian. The charge nurses on each hall also met with a physician weekly to discuss details of treatment. This ensured a highly integrated approach to patients' problems.

On admission the patients' reactions, as could be expected, were determined by attitudes and feelings related to experiences with parents, parent figures and siblings in the distant past, usually in their infancy and childhood.

Mary had been provocatively seductive in her reactions to men, yet unconscious of this and surprised at their responses to her provocations. She had avoided and feared any responsibility in her relations with men. She continued this pattern with her physician. She wanted her father as he seemed to her when she was 4 at which time he left her so abruptly because of a mental illness. She was deeply suspicious, jealous, and hostile towards women, as well as highly competitive, in keeping with her experiences with her mother.

Charlotte had had gifts, but little else from her father, and physical sensations but no real love from her mother. Charlotte wanted her allotted time with her physician—usually 50 minutes filled with a bitterly hostile dissection of her physician. With women she became too friendly and dependent, then suspicious and rejecting as she accused them of homosexuality.

Bob was superior and cold with everyone, taking what he could without any feeling as to the rights of others, as "experiencing emotions is to be avoided. Experiencing emotions puts you in the power of others capable of producing emotions."

Sam had to fight men to protect himself from his too strong needs for their warmth and affection or else he distantly avoided contacts as when he went through periods of refusing any individual psychotherapy.

Hank, with a similarly dominating father, adopted a similar reaction until the following experience. Hank struck the biggest patient on the hall whom he accused of calling him homosexual. This other patient, a massive man, picked Hank up and gently laid him on the floor and tenderly planted a kiss on his forehead. Hank boasted of striking the biggest man in the hospital and felt he had proved his man-

hood and yet added, "Some people get a homosexual thrill when being attacked." This episode gradually led directly into discussions of his own problems. Hank recovered 3 years later, after 6 years of illness.

The typical role assigned to the physician by the patient in the light of the reactions of this group was that of a parent. However, the "role of parent is not necessarily the parent as the physician comes to know him, nor as others knew him in the past, nor as the parent actually was, but the parent as the patient thought and felt him to be in the past. This perception of the parent colors the patient's life subsequently in health and illness, dramatically so in illness"(1).

In deeply involved schizophrenics the role assigned the physician varies at times "from one parent to the other, from parent to siblings to others and frequently any of those in a dizzy succession"(1).

These patients on admission were like infants in their relation to life. Great tolerance and understanding was available to them. They were offered encouragement, comfort, and protection, both from themselves and others. The staff were providers of these emotional needs as well as their physical needs, down to the smallest details.

Attitudes of tolerance and understanding on the part of the staff were mixed with a positive realization of what were necessary rules and regulations as far as limitations of behavior are concerned. There was a positive insistence on basic principles necessary if people are to live in close cooperation with one another. If possible an attempt was made to avoid making issues, but the staff never hesitated to make an issue if the situation demanded such a response.

Clara who had tyrannized her family by her unconventional behavior in protest to her rejection as an ugly duckling in a family of beautiful daughters, was tyrannizing the hall where she resided by the threatening behavior of her paranoid illness of 10 years' standing. She refused to take part in any therapeutic activity prescribed for her, remaining in her room where she barricaded the door with her imposing body. She was carried downstairs and outdoors on one occasion and on the next day carried to the beauty parlor and given a shampoo, wave, and manicure. In spite of her long-standing aggressive paranoid behavior, she accepted the staff's firm stand as it was formulated to her—that we were interested enough in her mental health and cared for her enough as a human being to see that she did what was best for her. She responded by saying, "It's time to give up this other business. I ought to be nicer to people and to forget the past." From this point began a healthy, therapeutic relationship which led to her recovery after 13 years of illness. She has remained well for 16 years and is an active and productive member of her community.

Sam and Hank, when working up to combative behavior, were met by a large force of male nurses, one of whom carefully formulated to the patient the advantages of a prolonged bath where he could take out his aggressive drives in the water while he and others were protected from the behavior based on his infantile needs to feel he was the master. Yet an attitude of respect for the integrity and healthy individuality of the patient was at all times apparent in the reactions of the staff members.

To be a productive part of group living is a goal although a most difficult one to achieve for the schizophrenic patient. Efficient group participation was not expected of these patients in the early part of treatment. For the first few days, except for necessary psychiatric, psychological, and physical examinations, these patients were generally permitted to make their own adjustment with a minimum of pressure from the staff. This gave the staff an opportunity to find out what the patient's capacities were. In the meanwhile from the patient and from relatives and friends a detailed life history afforded facts as to his preferred methods of handling situations.

Opportunities were afforded these patients for individual occupations, such as reading, painting, clay work at occupational therapy in a setting apart from others. At the gymnasium lifting weights, using the rowing machine or punching bag, bowling or similar individual pursuits were available to this group, who avoided and feared competition with others. These patients were typically ungraceful, poorly coordinated, and unskilled with their hands and most self-conscious of this difference from the majority of other patients. Men sometimes did not know how to throw a ball; women had to learn to knit or sew or do the simplest household chores. Individual instruction in a setting apart from others was useful in establishing fundamental skills which lead to satisfying hobbies and more sure coordination and grace.

Great respect was shown for the sensitivity and individuality of these patients. They were encouraged to make suggestions about their program and given opportunity to try these suggestions out, even though it was ob-

vious at times that their plans were poorly thought out and unrealistic. Patients seemed to learn best from their own mistakes and successes resulting from their own plans. Whatever was accomplished was a starting-off place for further advances.

After 2 years of hospitalization Joe, who had been an architect, was asked if he would be willing to make suggestions for the remodeling of the occupational therapy building. His plans were a flight of fancy which would have required the tearing down and reconstruction of the building. This, however, led eventually to work in architecture with the firm where he had originally been employed, later to an exhibition of cardboard houses and theatres of his own design, and later to painting, which fitted his nature better than did architecture. Upon leaving the hospital after 5 years he had won prizes for oil painting and was a paid member of the staff of an art school.

Schizophrenia has been classed as a non-transference neurosis. We are used to hearing such statements as withdrawn, shut-in, blunted affect, lack of feeling for others in reference to schizophrenic patients. However, this group of patients reacted, and reacted strongly, to their physicians. An affective relationship with another human being was a very real threat to these patients. They made such statements as the following, "If I love you, can can hurt me"; "Experiencing emotions puts you in the power of others"; "Emotions are to be avoided." Becoming attached to the physician brought up overwhelming conflicts over sex, dependence, and hostility in these schizophrenic patients. It was often, in fact usually, found advisable to have a series of physicians take part in the treatment of one patient. Thus Sam had 4 physicians, as did Hank and Charlotte. Clara had 5, Jean had 9. Mary was able to continue with one physician throughout her hospitalization only because her husband and father-in-law could work closely with the physician and play substantial roles in treatment during the early phases of the illness. As these patients developed positive feelings with each new physician, certain progress was made only to come to an impasse when such problems as lack of progress, excitement, negativism, or hostility became apparent. On each occasion through some method of expression, often quite symbolic and subtle, the patient indicated his preference for a new physician. With the change, the work of therapy then went on. The relationship with the last physician was uniformly the longest and most significant to the patient. With each new physician positive feelings towards the last one were expressed in some form when "it was now safe." With the last physician it was generally possible to discuss the nature of the ambivalent feelings toward former physicians that had interrupted treatment. As Joe said, "With Dr. A. it was human relationships, with Dr. B. sex and my marriage, with Dr. C. my profession, and with you, we just talked about art and got to know each other."

Much of what we have been describing above in the patient's treatment is what we can call the period of living out transference reactions, patterns of behavior in the present determined by feelings experienced in the past with parents and siblings and not necessarily related to the facts of the relationship involved in the present. This was met in treatment by an attempt to cultivate an empathy with the patient by following him through his irrational changes of feelings and thinking. Even early in treatment it is possible at times to point out these changes to the patient in tactful terms though this is often best left for later phases of treatment. During this first treatment period patients were aware that the staff neither feared these changes nor were overawed by them.

With the long and personal contacts with patients, members of the staff provided an example of mature adults responding objectively to the various stresses of every day living. This was a strong, though subtle, therapeutic influence on all patients who generally have lacked good models for healthy identification in their early life, and patients often commented favorably on this.

As this identification process develops and gradually strengthens, reality testing becomes a prominent part of treatment. It is in this stage that rapid oscillations in the patient's reactions were noted, periods of marked improvement and periods of as marked regression. Regression in these patients often played a constructive role. A period of withdrawal into symptoms often afforded a period of rest from external stresses when new approaches to life were digested and assimilated to become new insight. It was in this stage that more frequent changes of physicians were often noted. The patient tried

new approaches, some efficient, some not, and reacted to failures with symptoms as could be expected in schizophrenics with a so precariously developed sense of self-esteem.

Sam, whose father was repressively dominating and yet in infancy too seductively attentive, in staff conference admitted his deep respect and affection for a male nurse. When he was asked if there were any similarity between his deep dependence on the nurse and his feelings towards his father, he burst out crying. That evening he shouted at his physician, "I won't have any more of your God-damned psychotherapy." Yet gradually he became more a part of life about him. During his last 2 years of residence he recalled his guilt-ridden pleasure when his father bathed, dressed, and fondled him in infancy and childhood and his agony when his father refused to kiss him when he reached adolescence. Homosexual conflicts were ventilated. He could then accept new clothes which previously aroused such unwanted erotic and dependent feelings that for 3 years he had not accepted a new suit. During this 3-year period Sam had 3 different physicians, but for his last year made consistent progress with one.

The third period, usually carried through under the guidance of a single physician, can be considered the period of synthesis in which a stronger and more realistic ego was achieved. This period lasted 1-3 years and was generally over 1 year. It is obvious that these periods are not discrete and separate, all phases go on throughout the period of treatment but certain problems and advances in treatment are predominantly in one or the other period.

Mary tried to seduce her physician and later acted out homosexual behavior, but all in a most narcissistic setting. She was encouraged in her painting and poetry for which she had talent. While this went on she filled her needs for a good mother by occasionally cuddling up in the lap of a matronly nurse. She became reassured by the sincere and mature interest in her shown by her husband, her father-in-law, and her physician. New and more healthy identifications were made during this period and she was able to accept transfer to halls for more advanced patients where more was demanded of her. Close relations with other women gradually developed although the narcissistic as well as homosexual nature of these attachments were still apparent to trained observers. Gradual visits away from the hospital with her husband resulted in healthy heterosexual experiences which were satisfying to both for the first time. She for the first time began to give something of herself to her husband. When this relationship was well established after many months, she saw her daughter, now 4 years old. She looked foreward to this experience with this ominous comment, "Oh, good, I'll have a new audience." The child was brought to the hospital in the care of a nurse who was able to understand the situation and gradually relinquish her role as mother figure to the child as the patient's tentative attempts at motherhood became more mature. A new home gave the patient an opportunity to put into practice her real talents in decoration and helped establish a healthy sense of self-esteem. This patient has now been home 4 years. She is a good mother and wife, an excellent hostess, and an active member of community organizations.

During the period of convalescence or synthesis, patients were given opportunities to experience increasingly complicated social situations such as group sports, card parties, dances and discussion groups. They had been prepared for this over many previous months and sometimes years by graduated experiences of an increasingly complex nature.

Joe needed to learn to throw a ball and handle a bat hidden from the group of other patients by a grove of trees because of his sensitivity. He became an efficient though somewhat awkward ball player but had the thrill of making the hit, driving in the winning run in the last game of "The Little World's Series" between competing teams of patients.

Many patients needed individual instruction in dancing, card playing, and the ordinary social amenities. A carefully planned course of reading under the guidance of the physician and a librarian was beneficial to some of these patients. Several proved able to give book reviews and lead the discussions afterwards before patient groups with notable adeptness. Although reserved and self-conscious in smaller, more intimate social groups, these patients, all suffering from paranoid illnesses, responded with surprising poise and tact when given an opportunity to lead a group discussion. They often gained insight into their own problems by reading novels about individuals with similar problems and were able to discuss their own problems by referring to the characters in the book. Some patients with artistic talents were able to express their strivings and conflicts in painting and sculpturing and thus communicate with the physician through their art when direct discussion of their problems was difficult or impossible because of sensitivity.

A healthy way of living, well balanced as to work, play, eating, and sleeping was learned in the hospital by these patients and carried over into their life outside the hospital. Such balanced living aided them in gaining emotional satisfactions in living as

well as helping them keep in good physical health. These 2 factors increased their tolerance to unusual physical and emotional stress.

Ten of the 13 patients in the group commuted to work from the hospital for some weeks or months before leaving. Four returned to former occupations; 3 who had never before been employed, obtained positions at which they worked daily during the latter part of their hospitalization. Three other patients started working in fields foreign to their former interests but more in keeping with their talents and emotional make-up. The importance of working while still under the supervision of the hospital was well brought out by our experience with this group. Discussions about problems connected with work aided patients in their adjustment. Gradually they were encouraged to make contacts with other individuals and groups outside the hospital so that the ending of their relationship with the staff and other patients was not too abrupt for these sensitive people to manage.

Sam visited his aunt on many occasions; joined her church while on visits and became active in a Young People's group. After he started to work as a hospital orderly, he joined a political club and began to attend social functions in the evenings with groups outside while still residing in the hospital. At this point he started living weekends in a Y.M.C.A. and shortly thereafter left the hospital. While previously he was unable to be comfortable wearing new clothes, after joining a little theatre group he found great satisfaction taking part in plays requiring several changes of costume. His period of adjustment to the outside world lasted a year.

Charlotte who had been under psychoanalysis for 6 years before hospitalization found new satisfactions in a position as a private secretary. She expressed herself as follows, "What a fool I was not to work before. I don't worry about little physical things that happen to me and I'm not as sensitive. If my feelings get hurt, I can forget all about them when I work."

It was evident from the study of these deeply involved patients that it is in the field of the treatment of schizophrenics that our greatest therapeutic challenge lies. "In all these delicate and complicated inter-relationships we must move with exquisite precision, serene, calm, free of bias despite our own immediate and personal problems and worries"(1).

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SCHIZOPHRENIC REACTION TIME RESPONSES TO VARIABLE PREPARATORY INTERVALS[1]

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After a quarter century of relative experimental quiet, interest in and research on the problem of set, expectancy, and attention returned recently with renewed vigor. The problem appears to have achieved its full restored status with Hebb(1) who points out that these are terms referring to the prime problem of selectivity and can no longer be considered, as was frequently the case in the past, as experimental errors to be guarded against. Understanding the nature of these selective factors would seem equally important to the theory of thinking and behavior in the normal individual and to understanding the alterations involved in bizarre and disorganized thinking seen in psychopathology.

The literature makes repeated reference to alteration in attentional factors as being among the characteristics of schizophrenic illnesses. The terms attention and set are not always used but the inability to develop and maintain normal contact with events of the immediate environment is often referred to. One might say that, in these patients selective processes, whatever their nature, favor internal activities and are less than normally dependent upon sensory facilitation. Yet these internal activities also show mild to serious alteration in selective function as evidenced, for example, by unusual organization of associative activity.

With clinical observation, however, nondeteriorated schizophrenic patients frequently do not show this relative unreadiness to respond to surrounding events. Yet one could hypothesize that a sensitive test might show effects of this sort where such differences from the normal might otherwise be small enough to go unrecognized. But the first requirement would seem to be the experimental demonstration that schizophrenic patients differ in some consistent way from nonschizophrenic in set, expectancy, or attention.

Previous attempts to differentiate various patient groups and normal ones using the more traditional reaction time measurements as a measure of immediate attention level have been relatively inconclusive and even indicated in the work of Wells and Kelly(6) that dementia præcox patients showed the least lengthening of reaction time as compared with normals. Rodnick and Shakow (4), following some earlier work by one of them(3), published an index in 1940 based upon differential reaction time responses made to stimuli presented with regular and variable warning intervals. They reported a virtually complete separation of patient and control groups with one of the important variables involving the failure of the patients to maintain a readiness to respond when the warning intervals remained the same for successive trials at warning intervals beyond 4 seconds.

We had set up a reaction time apparatus which was to be used for the purpose of determining the ease with which uninstructed sets could be developed in certain clinical groups and in normals. The variables would be the different arrangements of time intervals which could be varied at will or maintained with reasonable precision. It was felt that, since it appeared possible to easily duplicate the essentials of the Rodnick and Shakow data, such an important finding should have additional verification.

Their chart, summarizing the data for the regular and variable warning procedure, shows that the patients' curves met and crossed over between the 4-second and 7.5-second intervals so that the patients responded faster at the 2- and 4-second regular warning intervals and then became slower than with the irregular warning from the 7.5-second interval beyond. The controls were uniformly faster with the regular procedure until beyond the 15-second warning interval, the curves remaining uncrossed up to that point (see Fig. 1).

Presumably we should be able to get an adequate test of this finding by using just 2 preparatory intervals mainly at 2 seconds and at 10 seconds. These would bracket the warning intervals which appear to be differentially important by the above experiment. We should obtain curves like those at the right of Fig. 1. The curves should cross only in the case of schizophrenic patients if the Rodnick and Shakow data represent a characteristic

[1] Study from The New York Hospital and the Department of Psychiatry, Cornell University Medical College, New York, and Hunter College of the City of New York.

difference in readiness between schizophrenics and normals.

Procedure

Several innovations were built into the reaction time apparatus used in this experiment. The subject was required to keep a colored light off during the intervals between stimuli by holding a dial knob to the left. Upon presentation of the stimulus, the knob had to be rapidly turned clockwise about 90° to turn off the stimulus light. This made for uniformity in the amount of movement, and anticipation could be readily detected if the left hand contact was not being maintained.

The stimulus presentation for regular intervals was controlled automatically by 3 Microflex [2] timers. The subject, in responding to the stimulus light, started the first timer which was set for 10 seconds throughout the experiment. At the end of this period, timer No. 1 started timer No. 2 which rang a buzzer for .3 second and started timer No. 3 at the end of its timing cycle. Timer No. 3 was set for the desired delay period after which it initiated the light stimulus. It could be reset to another interval while timer No. 1 was operating. The sequence was then 10 seconds from the subject's response to the warning, a warning of .3 second followed by the desired delay to the presentation of the stimulus.

The operation of timers and the subjects' responses were recorded on tape using an Esterline-Angus Operation Recorder [3] with

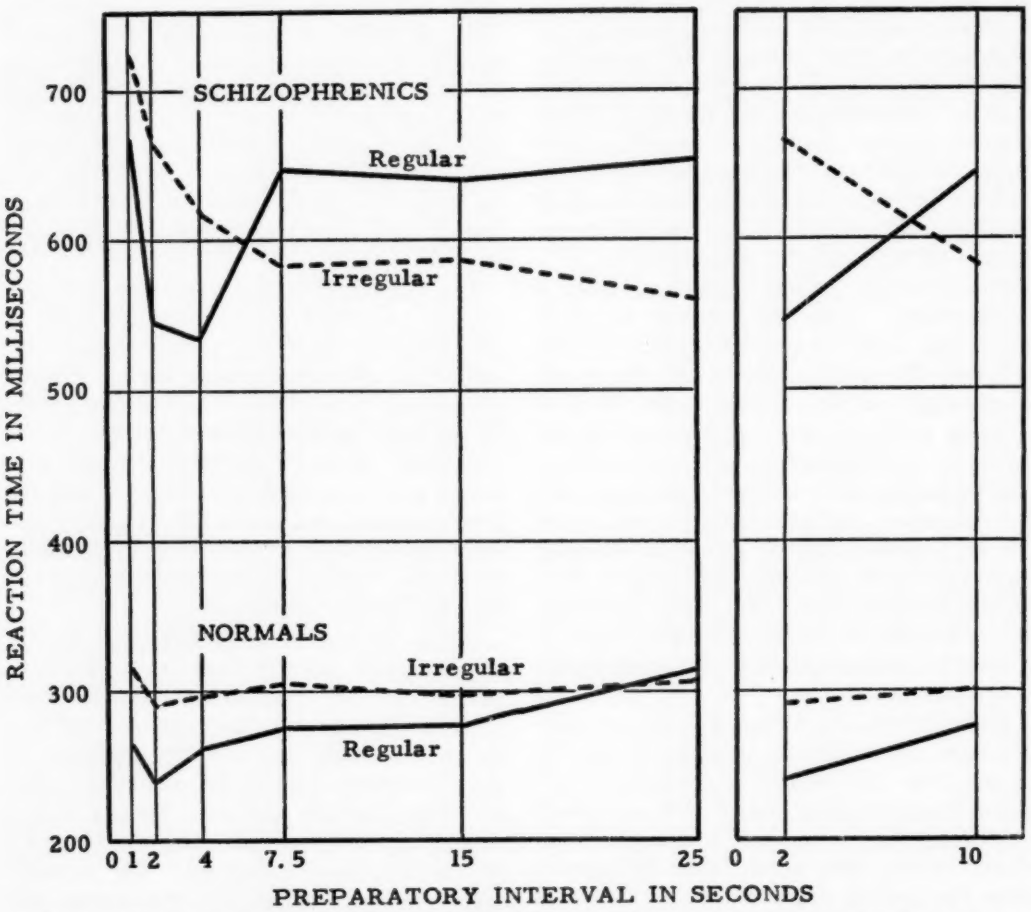

Fig. 1.—The chart on the left, after Rodnick and Shakow(4), shows mean reaction times for different procedures. The curves on the right are the results predicted from the data on the left if only 2 preparatory intervals of 2 and 10 seconds are used.

[2] The Eagle Signal Corporation, Moline, Ill.

[3] The Esterline-Angus Company, Inc., Indianapolis, Ind.

an external rapid-feed apparatus and trip coil which speeded the chart 60 times during reaction time recording. Measurements were made from the chart to the nearest .01 second.

In the regular procedure, 20 trials were given with the 2-second warning interval. Half the patients and controls had the 2-second interval first while the other half had the 10-second interval at the start. The variable warning procedure randomized the 2- and 10-second intervals according to a chance table for a total of 40 trials.

The subjects were 11 patients classed as schizophrenic at the time of experiment. The 10 controls included a physician, students, laboratory technicians, and secretaries. No attempt was made to equate the 2 groups since it probably could not have been done under any circumstances. The patient group, however, was above average in mental ability and would best be matched by controls on the upper side of the distribution of intelligence.

TABLE 1

MEANS OF REACTION TIMES AND INDIVIDUAL VARIABILITY OF CONTROL AND PATIENT GROUPS FOR THE 2 CONDITIONS OF UNIFORM AND VARIABLE PREPARATORY INTERVALS

All figures are in hundredths of seconds

	Uniform				Variable			
	2 seconds		10 seconds		2 seconds		10 seconds	
Reaction time	M	σ	M	σ	M	σ	M	σ
Controls	36.9	5.0	41.0	6.6	38.0	4.6	37.8	4.6
Patients	35.5	7.5	39.5	9.1	38.5	8.3	37.5	9.2
Individual variability								
Controls	5.7	1.8	5.6	1.9	5.0	0.9	4.7	1.3
Patients	9.4	7.7	9.0	4.5	10.5	7.4	9.7	6.7
Difference	3.7	...	3.4 *	...	5.5 *	...	5.0 *	...

* Significant at the 5% level.

RESULTS AND DISCUSSION

The experimental data are summarized in Table 1. In view of previous studies(2) showing lengthened reaction times in schizophrenic patients, it was not a little surprising to find the means for the patient group almost exactly equal to the means for the control group. While the patients varied somewhat more than the controls, only one patient was outside the range of the mean reaction times of the control subjects. One need not search far for a reasonable explanation. It has been shown again and again that speed of response is related to general intellectual functioning. We have studied patients who, even with disorganization resulting from the illness, could function at levels above average. They should respond more rapidly than patients with inferior intellectual ability. It may be reasonable to assume that previous studies have compared controls who were more intelligent with slowed deteriorated patients who may never have had equivalent mental ability. It is suggested, therefore, that the failure to find differences between controls and patients is due to the stage of the illness and the high level of intellectual ability among these patients.

Referring again to the means of reaction time for both groups and the 2 preparatory intervals within each experimental condition, it is obvious that the effect of the variables on these means is highly similar for both the patients and the controls. The increase in reaction time with the longer preparatory interval is virtually the same for both groups where the warning procedure is uniform. With variable intervals between the warning and stimulus light the longer interval yields a slightly faster time. None of these within group differences reach statistical significance. When these data are plotted (see Fig. 2), it is seen that both pairs of curves cross. In effect, the data both for our controls and schizophrenic patients are like the data for Rodnick and Shakow's schizophrenics (see Fig. 1). Our controls (who were and still are "normal") did not perform like the normals of their study.

It would appear, as in their interpretation for the schizophrenic performance, that the uniform preparatory interval leads to a relaxation of set at the longer interval making for a slightly slower rate of arousal. But in our data this occurs equally with patients and

controls. Attention is apparently maintained for both the shorter and longer intervals in the variable procedure, a result that was obtained only with the schizophrenic group of the study referred to above. Our data are, a priori, more reasonable on this point. One may seriously question the appreciable improvement for the longer ready intervals in the irregular procedure of the Rodnick and Shakow experiment since patients of the kind reported would not be expected to achieve and maintain sets with increasing relative efficiency, surpassing normals in this respect. As a group their patients showed just such a relative gain when compared to the normals.

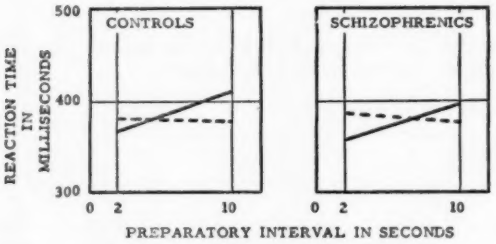

FIG. 2.—The obtained data for the 2- and 10-second warning intervals with the regular procedure (solid lines) and variable procedure (dotted lines).

Otherwise, the results in this study are in general agreement with previously published data showing an increase in individual variability in patients over expected control values. It will be noted that 3 of the 4 comparisons between controls and patients are significant at the 5% level. In effect the patients show greater oscillations in efficiency in the sense that Spearman used the term(5). The variability would be one measure of the amplitude of the oscillations in the speed of reaction and presumably in the readiness to respond.

So, while the patients and controls are alike in their mean speed of response and in the average effects on them varying the nature of the preparatory interval, the patients tend to show a significantly greater fluctuation within a series of reactions. When the reaction times are plotted, the oscillatory character of the individual reaction time series appears, indicating that the variability has a cyclic character. The difference between the controls and patients seems to be essentially in the amplitude rather than in the periodicity. A change in the experimental procedure has yielded much clearer patterns of oscillation in a few subjects and further intensive study of the phenomenon is projected.

The above evidence indicates that it is not at all certain that persons with schizophrenic characteristics differ from normals in either speed of reaction or in singularity of readiness characteristics as previously reported. Attentional factors are not thereby ruled out, since alterations in experimental conditions might well yield a distinctive measure. The consistency with which increased variability has been reported in schizophrenics indicates that sharpened technique might yield data of some discriminatory value. The importance of this difference in variability is heightened since Spearman indicated oscillation to be one of the single, universal factors of cognitive function.

SUMMARY

1. No difference was observed in speed of reaction when a group of patients with schizophrenic illnesses was compared to a control group.

2. Previously reported differential responsiveness of patients and controls to variation in length of preparatory interval and regularity of stimulus presentation was not observed. The usefulness of such a technique for differentiating schizophrenics from normals is questioned.

3. Variability of speed of reaction tends to be significantly greater in the patient group. This result is consistent with previous findings. It is suggested that this represents an increase in the amplitude of fluctuations in readiness which are oscillatory in character.

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A PROBLEM IN SEX PATHOLOGY

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In the area of sexual behavior, for many years a major interest has been the application of learning concepts to the problems of hetero- and homosexuality. Dr. Magnus Hirschfeld once wrote. "The scientific analysis of erotic attractions should concern itself . . . with the following four problems: (1) by what sex, (2) by what type of person, (3) by what individual, (4) by what qualities is the attraction exerted" (11, p. 124). Since homosexuality, for example, presents the problem of sexual inclination in one of its broadest possible forms, the task of resolving it in terms of developmental processes presents a highly complex task.

The peculiar specializations of sexual interest seen in erotic fetishisms offer a challenge to learning theory more sharply defined than others. Here the "particularity" of sexual responsiveness is at its height, since it may be limited, in some cases at least to quite restricted items of sexual stimulation, or to certain experiences that are conspicuous in having sexual value for extremely few people. For this reason, perhaps, the fetishisms offer an opportunity for evaluation of the usefulness of learning principles at a point where the essentials of the problem may be seen in relatively limited context, and therefore in relatively simple form. The writer is not prepared for any comprehensive attempt of this sort, but suggests here a few of the directions such an attempt may take and some of the data and problems it will encounter.

AN ILLUSTRATIVE CASE

Some of these problems are well illustrated in a case recently studied intensively (9). The subject was a 35-year-old single white male of above-average intelligence who fully realized his abnormality, and fortunately was highly articulate in describing it. His sexual interest centered around women's shoes, ankles, and legs; he had little interest in the leg above knee. The interest in feminine shoes was traceable, by clear recall, to the fourth year. He remembered playing with shoes stored in closets, having fantasies of shoes, and was especially fascinated by those of slipper style with high heels. Shoe fantasies accompanied masturbation, which began at age 9. He testifies, however, that his earliest interest in shoes, while strong and specialized as to models, was free of sexual meaning. Later there were dreams in which shoes figured prominently, accompanied by genital excitement. Following a period of abeyance of fetish interest during late adolescence the urge reawakened in his mid-twenties and became very strong. His method was to frequent public places and search for a woman whose shoes and legs met the requirements of his tastes (high-heeled pumps, gracefully formed ankles and legs); he then achieved excitement to the point of orgasm simply by concentrating his attention. He describes the erotic effect of such concentration as not confined to the genitals alone, but generally diffused and accompanied by sensations of warmth.

A notable feature of fetish sensibility in this instance was its dependence upon movement. Some degree of "gyration" of the foot was necessary to progressive erotic excitement; for example, the rhythmic restless pendular swinging of a crossed leg by a girl in a seated position. The motionless member, though erotically interesting, produced no cumulative effect or "build up." The subject stressed, however, the great importance of his sexual vitality at any given time, and states that at peak intensity of the urge his excitability was such that even a window display of shoes modelled on a mannequin was sufficient to arouse orgasm. (Once sufficiently excited, other stimuli might acquire stimulus value; thus on one occasion he reached climax on watching the movements of a woman's hand. To this he was ordinarily indifferent though he might at times be aroused if the hand were long, well shaped, with slender fingers.) His requirements being rather highly specialized, pursuit of the fetish was often an excessively taxing ordeal. He often spent many hours before making a "sighting" that met his criteria, and he then was in constant anxiety lest his peculiar behavior—fixed scrutiny and expressions of emotion—attract attention in a public place.

The excessive strength of the deviant urge so often noted in the literature of fetishism is here impressively illustrated. At a time when he was unable to find employment the subject abandoned himself entirely to the urge, its power rendering him admittedly helpless. He recognized his sickness and termed it a "disease." Entire days were spent frequenting public places, from bus stations to churches, "any place where a woman wearing my fetish needs might be found seated long enough to make an ejaculation possible." Under protracted tension he suffered from intense headaches. So overmastering at times was the passion that despite a rather timid disposition he had once, in pursuit of the fetish under difficult conditions, reached orgasm while running at top speed, in a public place, with full realization that he faced imminent danger of arrest. At other

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times with sharpened sensitivity, his excitement rose to climax at the sound of the heel-taps of an unseen female.

Some unusual observations resulted from the subject's seemingly normal capacity for conventional love attachments, enabling him to compare amorous attraction with the fetish experience. The latter, he testifies, is more than a genital-sexual episode. It includes emotion of a different quality, which he states is closely similar to that of being "in love." While this nongenital effect of the fetish tends to envelop the personality as a whole, its focus continues to be the fetish members, and expresses itself in part, in a strong but nonsensual impulse toward caressing and kissing the shoes, ankles, and legs. This component of fetish behavior has been noted in other accounts. The subject felt certain that the basis of some of his normal love attachments was the "charm" of fetish traits that met his criteria.

A striking discovery was that motion picture films of feminine feet and legs in movement gave him fully adequate satisfaction. With a few short reels of material of this kind, obtained by employing models for the purpose, he was able to dispense altogether with the living stimulus.

ADEQUACY OF CURRENT THEORY

The unusual adaptability of many fetishisms to the conditioned reaction formula has long been recognized, and the interpretation of fetish influence as a product of a conditioning incident is widely current. The typical account runs, essentially, somewhat as follows: the attention of a youth, at a moment of intense sexual excitation—perhaps his first—is caught by a certain detail of the total situation. This detail, *e.g.*, shoes, an article of clothing, almost any distinctive personal characteristic of the partner or "seducing adult," or even an item of the environment more or less extraneous to the sex experience proper, somehow registers vividly upon the subject's sensibilities. By this incidental or accidental contiguity the particular detail acquires the potency to evoke sexual excitement independently of the primary stimuli and is thereafter sought as a "fetish." The account thus proceeds "in a simple associative manner," as McDougall puts it.

In some statements the idea of "displacement" of sexual interest to a peripheral or extraneous detail is introduced, such displacement being "always found to be the result of early experiences and sometimes may be seen to be largely of the nature of a conditioned reflex" (8. p. 207). The descriptive value of the term "displacement" is especially clear in those instances of classical or "pure" fetishism in which the dissociation of the fetish from its bearer is complete, and in which the fetishist can say, for example: "For me the girl does not exist; my sole interest is her beautiful hair." Displacement, in this context, implies that sexual arousal was originally elicited by the primary agencies—the genital or other zones—from which it was diverted or withdrawn by way of the critical incident.

The adequacy of this interpretation of the origin of the fetish may well be judged, we suggest, with the following considerations in view.

1. The fetishist is frequently reported as indifferent to the primary sexual characteristics, and often as experiencing aversion toward them. No quantitative data are, to the writer's knowledge, available on the incidence of this "negative" factor in the sexual susceptibility of the fetishist, but references to it are common in the case material. Freud, for example, states that aversion to the female genitals is "never lacking in any fetishist" (6, p. 200), while Krafft-Ebing observes, with respect to fetishisms involving parts of the body, that the fetishist is in reality a sexual defective, that the abnormality is not so much in what stimulates him as in the "limitation of sexual interest" (12, p. 209).

While the positive aspect of the phenomenon—the sexual value of the fetish object—may be assimilated, in principle, to the concept of conditioning, it remains to tell what has happened to responsiveness to the primary agencies of "tumescence," *i.e.*, genitals, breasts, etc., if we assume that in the original, precipitating experience these stimuli were basic to the excited state of the organism. The setting for "stimulus substitution" may be adequate, but that for displacement is not clear.

We can assume that in the original experience the excited state was endogenous, and was contemporary with some sexually peripheral or extraneous stimulus, which thereupon acquired fetish potency. Thus, in a case reported by Féré (5, p. 230) the subject, while masturbating, experienced an orgasm of marked intensity when his attention was caught by the sight of some horses straining up a hill; the spectacle thereby became an adequate stimulus to ejaculation. Such fa-

cility of conditioning raises a question as to why fetishisms should not be an exceedingly common phenomenon. Albert Moll pointed out, years ago, that the attention of a masturbating child may wander over many indifferent items, "but this does not induce the association throughout life of sexual excitement with the sight of any of these articles" (13, p. 131).

2. Whatever truth lies in the view that the incidence of fetishism is greater in men than in women must also be fitted to the learning concepts. Fenichel believes the disorder to be "very rare" in women (4, p. 344); Stekel regards it as, despite exceptions, "generally a male disease" (14, Vol. I, p. 363); Ellis noted the "great rarity of fully developed fetishism in women," though he thought slight degrees might occur (3, p. 62); Krafft-Ebing stated that pathological fetishism had been observed only in men (12, p. 213).

3. The needs of the fetishist may be remarkably specific. Stekel has described in detail an apron fetishism dating from "very early life" which involved certain colors and patterns, and in which an apron might be rejected because, despite a proper color, the pattern failed to meet criteria; it was also required that it be of washable fabric, and unkempt (14, Vol. 1, p. 314). He cites from a secondary source a fetishist who was erotically excited "only by the nails of women's shoes." In early youth the subject felt an "irresistible" fascination at sight of such nails; they cause him to become "lost in rapture"; he revels in compulsive fantasies which revolve in myriad details about the fetish, accompanied by masturbation; he repeats words or phrases which conjure up such imagery (14, Vol. II, p. 82). That the stimulus may be neither animate nor sex-associated is indicated in one of Hirschfeld's cases in which the subject became aroused and masturbated in response to the sparkles of light reflected from a crystal ornament detached from a chandelier (10, p. 131).

4. A familiar feature of accounts of fetish experience is the extraordinary power of the erotic arousal, the implication of occasional references to its "pathological intensity" being that excitement has here increased altogether beyond its normal bounds. Stekel reported a petticoat fetishist who "claimed that his impulse was almost invariably irresistible, that he would sometimes spring out of bed at night, turn out into the open, find some petticoats and gratify himself. He stated that at such times he felt so wild that he neither knew where he was or what he was doing" (14, Vol. I, p. 196). Of an instance mentioned by Hirschfeld, it is stated that "This lack of power to resist his passion, which he declares is unconquerable, has destroyed his name, his career, and his position, and caused twenty failures up to the time of his imprisonment, which came after he had cut twenty-one locks of hair" (10, p. 68).

Among the possibilities we may assume that the disorder has developed within the setting of an unusually vigorous sexual organization; that the intensity represents a rationalization on the part of the fetishist; that the intensity is an essential feature of the disorder, and therefore requires interpretation.

5. The rigidity with which erotic arousal seems enslaved to the "precipitating experience" is often notable. It is illustrated (though the experience is not traced) in a case of Hirschfeld's in which the subject is sexually stimulated by the sight, or thought, of immature girls, clad in scanty clothing in the coldest of weather; he draws pictures of girls with bare arms, shoulders and legs in an icy setting and watches the schoolyards in winter (10, p. 49). Freud acknowledges that the conditions determining such "adhesiveness" of the libido "to certain tendencies and objects" are entirely unknown (7, p. 301). Concerning the view that such fixations may be traced to early incidents, he remarks that it is often "hard to say how such an impression becomes capable of attracting the libido so intensively."

6. Moll asserted that the assumption of a precipitating experience involving the contiguity of sexual excitement with a secondary stimulus "is in most cases a pure supposition, quite unsupported by proof" (13, p. 131). Ellis observes that not only is record of an episode absent in many cases but in some instances the phenomenon appears by way of gradual development; he allows, however, for the possibility of forgetting (3, p. 27).

7. By the conditioning hypothesis the specificity of the fetish object or impression may assumedly have no essential connection with sexual excitement, the interpretation resting upon the state of the organism at the critical

moment, upon the accidental circumstances of erotic arousal, and upon the "tenacity" of the libido, considered, possibly, as an independent variable (Freud). Such a hypothesis should relate in some way to the relative incidence of the various kinds of fetishism. While the writer knows of no reliable data on this incidence, the reports available appear to point to a relatively high frequency of certain forms, such as foot fetishism, which we are told is fairly common in the Orient (3, p. 21).

As an alternative to the conditioning hypothesis there is available the psychoanalytic account in terms of castration fear and screen memories, with the fetish (the foot or shoe, "long hair, earrings") functioning as a penis symbol, a refusal to acknowledge woman's lack of a penis. The application of these concepts to such fetishes as voice quality (2, p. 103), the eyes(1), or various deformities (10), is not easy to make, and Freud has conceded the difficulty of the problem of origins and likewise that the differentiation of the fetish reaction to castration shock from other reactions such as homosexuality, as well as from normality, has yet to be explained. The theory offers an interpretation of the negative aspect of fetishism and doubtless gains weight when the fetish may be said to exhibit resemblance to the penis. When this resemblance is altogether lacking and an experience is assumed whereby the fetish acquires symbolic value, the problem becomes somewhat the same as it is for the conditioning principle.

The possibility that a relationship may exist, by way of a continuum, between pathological fetishism and those far more common and familiar specializations of "susceptibility," which make the phenomenon of normal sexual preference, was first suggested by Alfred Binet, though subsequently adopted by a number of others. We are all, Binet would say, fetishists in so far as one pattern of features rather than another intrigues us with the erotic-aesthetic pleasure it arouses, or if we find that one timbre of voice, or a certain grace of movement is relatively more appealing—perhaps very much more— than others. The significant fact, he points out, is the existence of transitional cases. At the extreme of what is perhaps a continuum is the deviant whose fetish interest is altogether indifferent to the presence or absence of a human being as its bearer. Next, Binet himself supplied examples of what he interpreted as intermediate forms: cases in which the interest in and erotic arousal by a particular detail was extraordinary, yet in which the personality of its bearer was by no means a matter of indifference. Finally, we should reach the assumedly normal individual to whom a great many sexual and nonsexual characteristics are important, but who finds also that he has some very definite preferences, and that he can perhaps define fairly well the nuclear stimulus to attraction.

Binet's concept is, in the main, an "ordering" rather than an explanatory contribution. It might be thought of as offering an approximate way of "measuring," in a sense, the degree of departure from sexual normality represented by any given fetish interest. It certainly points directly toward a need for direct investigations of the individual meanings of "sexual attraction" in order that we may know how large is the incidence of intermediate or minor forms of such distinctive susceptibilities. If these abnormalities should finally emerge as deviations of a basic process of sexual behavior, the problem of their genesis might be recognized as larger than one of a special pathology.

Summary

1. Attention is called to the phenomenon of sexual fetishisms as one in which the problem of deviated sexual aim is defined, in its stimulus aspect, with exceptional sharpness.

2. A case history is presented illustrating (a) onset in childhood; (b) highly specialized character of the fetish; (c) extraordinary strength of the impulse; (d) evidence of an "amorous" component in the response to the fetish.

3. In the setting of this case and a number of others, some contemporary theory is examined with regard to its adequacy for certain features of the data on fetishisms, with special reference to the principle of conditioning. The psychoanalytic interpretation is briefly discussed, also Binet's observation on near-normal varieties of fetishism.

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THE DIAGNOSIS AND THERAPY OF HEALTH[1]

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The historical tendency of medicine to focus on disease has obscured the fact that health is the main goal of therapy and that it too is the object of treatment. Consequently, the common practice of diagnosing only the disease and not the health of a patient seems remiss. Even fully developed illness rests on a foundation of health. Disease is the interruption, more or less temporary, of the natural course of health. An individual is subject to many episodes of illness of the same or different types during his life and, except for a terminal illness, a core of health is always present. Moreover, recovery from illness depends greatly upon the resistance of the health component to the progress of the disease and to a major extent the therapist relies upon this resistance as his chief ally in treatment. In preventive medicine the emphasis is on the maintenance of health and in orthopsychiatry, as Lowrey(3) points out, the special concern is the correction of deformities with the cure of disease merely incidental to the general problem. A clear delineation of the patient's health as well as his illness is therefore essential in order that treatment can be properly focused on each.

Difficulties in Defining Health.—The definition of health has been studied from many angles. The idea of normality is unsatisfactory because health is too complicated and dynamic to be defined in simple quantitative terms. Borrowed from physical science, which stresses the average or statistical norm, normality attempts to find standard criteria against which each individual can be measured. Though often useful, it has gross limitations since the frequent and common is not always the beneficial. Another error has been thinking of health unscientifically in terms of "good" or "perfect." Moreover, the impression that health is an absence of disease is obviously merely a negative one.

We must also avoid a definition of health in terms of single organs or systems; of separate physical, psychologic, or social features; of disconnected somatic or psychiatric aspects. One function or organ may be in the forefront at times, and physical or psychologic aspects may be especially conspicuous. However, we must never lose sight of the fact that the organism is a single entity, a united organization of biological parts in a physical, psychologic, and social environment. A practical formula for a general concept of health should therefore be equally applicable to all its aspects—physical, psychiatric, and social.

Subjective Aspects of Health.—Health may be described as a state of physical and mental well-being. In health the individual feels relatively at peace with himself and the world and has a sense of freedom, contentment, achievement, growth, and satisfaction. He is comparatively free from significant pains, anxiety, and other symptoms and signs of illness. He is able to work adequately and to create within the limitations of his capacities, to relax after work and enjoy recreation. He can carry on his essential biologic functions of sleeping, eating, excreting, and so on, without any sense of disturbance or discomfort. He gets along well in his physical and social environment and accepts the customary restrictions without clashing with these limitations. Yet he is adequately venturesome, has a feeling of freedom, and is willing to meet new situations. In the course of his life, he undergoes periods of dissatisfaction, maladjustment, disturbed well-being, but he counters these with appropriate reactions and regains his composure in a reasonable period of time.

The Physiology or Dynamics of Health.—As a life process, health is not a stationary state but one characterized by change and adjustment. In physiologic terms, health reflects successful homeostasis(1). The organism moves in order to preserve itself, to grow and develop, and to multiply. It seeks its physical nutriment and psychologic and social needs from the outside environment. The movement operates successfully when the organism finds what it requires to fulfill its

[1] Read at the 29th annual meeting of the American Orthopsychiatric Association, Feb. 25, 1952.

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aims. Ideally, this is the state of affairs of health, but the path is rarely smooth. Often the requirements are not immediately available and the organism gets into a state of dissatisfaction and tension. Or the outside environment may be directly unfavorable and hostile, as when the organism confronts infections or psychologic frustrations. In either case, special physiologic or psychologic defensive measures are called forth. The organism is then in the midst of a conflict and in a state of imbalance. It urgently seeks to recover its equilibrium. In the beginning, the activity has a trial-and-error aspect, but in its more developed form it proceeds more directly to attain its aims.

In health the organism adjusts more or less easily. Such adjustment can be accounted for in many ways: the frustrations have not been too great; the organism has an innate capacity to readjust to dissatisfaction; it has adequate facilities for filling its needs; or, it has sufficient resistant power to counteract attacks. Temporary disruptions of this sort are considered physiologically or psychologically normal and in harmony with health.

In contrast, disease occurs when the disruption is too great and the equilibrium is seriously disturbed(4). The excessive stimuli or inadequate capacities result in pathologic alterations which are evidence of the failure of the organism to cope with the problem. Thus conflict and continued tension produced by inner and outer stimuli are characteristic of life in both health and disease. The essence of health, however, is that balance and adjustment are maintained more or less successfully, whereas in disease they have temporarily failed. Complete failure means the end of life—not health or disease, but death.

The Pathology of Health.—The idea of a pathology of health may appear paradoxical because health and pathology are sometimes considered to be at opposite poles, one good, the other bad. In fact health is far from a state of perfection. In life, the ideal is a nonexistent fantasy and all men, even those in unquestionably good health, have some defects, weaknesses or inadequacies when compared to an imagined ideal.

A moderate number of symptoms is not out of harmony with health and is rather the rule in the ordinary course of life. The significant difference between illness and health lies in the degree of deviation and disturbance, and whether readjustment can be achieved in a reasonable period. There is no sharp line of demarcation between the normal and the abnormal. In a sense it may be said that a minimal degree of illness is normal and can always be found by the perceptive and trained observer. A headache, a cold, a backache, sore muscles after exercise, slight depression, anxiety over a new venture are all common and natural occurrences even among the healthy. But if recovery is prompt, the individuals experiencing these reactions cannot truly be regarded as sick.

Other imperfections characteristic of health are defects and limitations, either physical or mental. No two people are alike. A prime feature of human beings is their difference. The statement that all men are created equal must be qualified. They are born equal with rgard to such basic needs as rest, food, air, sex, love, but they vary tremendously in their capacities and range of inborn differences. Obvious differences occur in height, weight, pigmentation, intelligence, resistance to disease, bony structure, and muscular build. Potential inherent capacities may be well developed in one individual but may be neglected and lie fallow and wasted in another. Aging, education, nutrition, social opportunities, accidents, and even disease still further emphasize human differences and defects.

An imperfection or weakness, however, does not necessarily imply a disease. A man with an amputated leg is not sick if he learns to get along well on crutches. A mental defective can be useful, happy, adjusted, and do well at a simple occupation suitable to his capabilities. A person with a crippled rheumatic heart can live a long and healthy life if physical exertion is kept within his capacities. A diabetic has his diet regulated and is instructed in the use of insulin; he follows directions competently and lives a useful and productive life without discomfort. Is it correct to say that he is a sick man because he has diabetes and his own body's store of insulin has become inadequate? Is it not more correct to consider him healthy as long as he can supply himself with insulin and to regard him as having a defective constitution which is capable of being adequately compensated? A child with superior intelligence may become

a behavior problem in an ordinary class but adjusts well when his capacities are discovered and properly handled; his superior intelligence was just as much a handicap as the inferior intelligence of the poorly endowed child in the same class. Or is it correct to label as sick the hypomanic movie director, the driving successful business man, the obsessional secretary, the eccentric creative artist? Are they not well as long as they carry out their purposes without clashing socially or developing physical or psychiatric symptoms?

These instances show that the state of health can be adequate and continue without disease provided the individual is not tried or pushed beyond his intrinsic capacities. It is only when he exceeds the limits of his ability to adjust, either physically or psychologically, that trouble arises. Then health becomes so disturbed as to bring illness into the foreground with its concomitant physical or mental signs and symptoms.

The Identity of Health, Constitution, and Personality.—The dynamic features of adjustment plus various degrees of stabilized imperfection represents a special view of the more commonly known descriptive concepts of constitution or personality. Though synonymous, the term "constitution" is generally associated with physical and "personality" with psychologic features. Both refer to the total psycho-physical organization, the more or less stable and basic make-up of the individual. It is the sum and substance of endowments and acquisitions and includes hereditary capacities with their subsequent maturation and development, adaptation to the environment, and the effects of learning. Original defects may be modified, but along the way others may be added, some from injuries and accidents, others from misdirected experience. Each attack of illness leaves its mark on the physical or mental constitution; some are insignificant, others important enough to affect materially the subsequent course of life. The end result is what the individual has to cope with and adjust to the vicissitudes of life.

Traits, the units of personality, can also be considered basic structural elements of health. A trait is a distinctive psychologic or physical feature or quality. The organization of traits characterizes and differentiates a particular person. The shape of the nose, color of the eyes, distribution of the hair, allergic idiosyncrasies, nearsightedness, muscular capacity are examples of physical traits. Intelligence level, obstinacy, shyness, temper outbursts are psychologic traits. Many traits have both physical and psychologic features. The origin of psychologic traits is explained succinctly by Freud(2), who stated that "the permanent character traits are unchanged perpetuations of the original impulses, sublimations of them or reaction-formation against them." The physical traits are derived from the original hereditary material and its maturation and development. Heredity and environment are full partners in the evolution of traits—heredity provides the original seeds of potentiality which the environment feeds, directs and molds. The best environment can do little if the original inborn potentialities do not exist, and, conversely, unfavorable environment can waste good hereditary potentialities.

A minor point of confusion in the problem of health and disease arises in the differentiation of traits from signs and symptoms, the clinical units of disease. Traits are more or less stable features of qualitative adjustment or health. Thus, puny physical make-up, mental deficiency, physical or psychologic immaturity, and other constitutional inadequacies are valid facets of a particular individual's health. Though these may require attention for betterment or protection, they are still characteristic of his health—deficient health, to be sure, but not disease.

Moreover, traits have many intimate linkages to disease. Illness often modifies traits or produces new ones; and also certain traits can indicate or foretell the possible advent of an illness to a discerning physician. The finely balanced and complicated living organism is very susceptible to injury and is constantly being bombarded by adverse forces. The healthy organism can usually repel these adverse forces with little or no significant effects. But many events, especially severe injuries and disease, leave some local or general alteration. For instance, adolescent acne or smallpox may leave behind enduring facial scars. Fortunately, the residuals of most diseases remain merely as insignificant marks upon the continued health of the individual. Injury and disease are also potent factors in developing personality. Some traits derived

from illness may even be distinctly advantageous. For example, lifelong immunity may be conferred by a mild tuberculous infection or a physical handicap like infantile paralysis may lead, as in the case of Franklin D. Roosevelt, to the exercise and development of intellectual and social capacities.

Many psychologic traits are derived from neuroses. Psychologic conflicts often lead to neurotic symptoms which are the compromise results of partial gratification and partial renunciation of instinctual drives. If the personality can acquiesce in the compromise, the neurotic symptom is adopted as an expedient form of behavior and becomes a personality trait. Even the most healthy personality has much of this neurotic origin. Tidiness and steadiness of purpose at work are traits which obviously have an obsessional background. Moreover, it is these neurotically derived character traits, undoubtedly eccentric and peculiar, that give us our distinctive color and flavor as individuals. Often the unique tang of personality can be traced to such neurotic residuals, as can also flatness, insipidity, weakness, or rigidity. Thus, although neurotic traits may be found in anyone it is not the extent and degree of the handicap that makes it significant but how it affects the particular individual's adjustment. The advanced neurotic personality, with its many neurotic traits, is patently a direct product of severe neurosis. This group includes the repeating criminals, the psychopathic inadequates, the eccentrics, and those who will fail, through psychosis or severe neurosis, when they are confronted with common problems of life.

The ability to foresee possible disease on the basis of certain traits may lead to mistaking defects for signs of disease. For example, benign tumors in insignificant locations merit watching but do not require drastic surgery. Asthenic body structure suggests the possibility of decreased resistance to infection. Heart murmurs must be properly interpreted, whether they are functional or pathologic. Psychiatric traits, such as overcautiousness, social immaturity, emotional instability, schizoid tendencies, must be recognized as character defects but should not be confused with signs of active disease like neurosis or psychosis. The defects represent points of constitutional weakness which may give way under stress but until then illness is not the problem.

Varying Perspectives to Health.—From these considerations, it is clear that the evaluation of health depends upon the point of view of the observer—whether it is the subjective impression of an informed or uninformed individual thinking about himself; or that of an experienced internist, psychiatrist, or scientist; or that of a sociologist, public health officer, or expert particularly interested in the group or community.

The individual may be satisfied with his own state of health while the physician, who has a more long-term view, may not. The physician's function is more than to treat disease. With the growth of preventive medicine and the widespread interest in public health, the scope of medicine and diagnosis has been greatly enlarged. Today the physician is called upon to recognize early signs of possible illness long before the patient may be aware of it. Medicine has also assumed the added functions of improving man's capacities and decreasing his limitations. Immunization, for example, is not a form of treatment of the sick but is really a way of increasing health or the capacity to repel future assaults from a possible infection by improving the physical constitution. Furthermore, the physician, as a public health officer, has the social function of preventing the spread of disease. Thus, quarantine regulations protect the general public from contagion. Society has also established laws for its protection from a psychotic who may endanger the lives of others even though he may not be aware of any defect in his own being.

In short, the physician is not only a therapist but is also a trusted vanguard fighter for the future battles of the individual against disease, a benefactor who enriches and promotes individual capacity, and an expert working for the protection of society. From this broader viewpoint, health is not only the current absence of disease but also the promise of the continuation of individual health and the protection of the health of the community.

Therapy of Health.—A great achievement of modern medicine is its program of therapy for the healthy, now a major function of the physician and other therapists. We therefore

need 2 classifications: one for the pathology of health and the other for active disease. Complete diagnosis in an individual case requires a double approach: an estimate of the basic state of health plus the disease process which is grafted upon it. For example, pneumonia in a wholesome young adult is a different problem from pneumonia in a senile or a diabetic person. A depressive or anxiety state has different meanings when it occurs in association with a mentally defective, a neurotic, or a psychotic personality. Undoubtedly, a type of double diagnosis has been used generally in a tacit way but the explicit formulation of the basic state of health or constitution clarifies the problem of nosology and therapy immeasurably, especially in psychiatry.

Therapy assumes different meanings when we treat the signs and symptoms of disease or the traits of health. In disease, treatment is symptomatic or etiologic. The latter involves either a reduction of the irritating process or an increase of the basic defenses of the organism. The therapy of health consists of readjustment of activity or alteration of the constitution. When the organism must accommodate itself to irreversible limitations imposed by a disease process, by heredity or by the environment, the individual must change his activities or way of life to become asymptomatic. Health is thus attained at a sacrifice. The cardiac must restrict his physical activity, the diabetic must control his diet, the mother must accept lesser ambitions for her dull child, the timid man must become less venturesome. The price is the acceptance of a lower level of functioning as a trait of his health or personality. The exchange of symptom for trait in order to obtain stability is a common mechanism in the alleviation of maladjustment.

Constitutional therapy of health, on the other hand, is directed toward the prevention or alteration of defective traits. Mental hygiene, child guidance, and psychotherapy aim at enhancing personality structure, and prophylactic measures of immunization, sanitation, dietary improvements effect physical improvements. Long-term psychotherapy, and especially psychoanalysis, are mainly involved with the alteration of neurotic personality traits. Though it is the most difficult, time consuming, and expensive, constitutional therapy is of the highest order and most efficacious.

Summary

Dynamically, health is the phase of the life process characterized by relatively efficient and stable homeostatic balance of vital forces. It consists of a minimum of maladjustment within the individual and in his relation to society and physical environment, a capacity for ready recovery from disturbances, and a fair assurance of the continuation of the stability. However, its evaluation is relative and varies according to the perspective of the individual, the physician, or society.

Descriptively, the concept of health is synonymous with those of personality or constitution. Traits are also its unit features.

A pathology of health is a valid view and refers to defects and limitations.

The therapy of health is concerned with the maintenance of health, the alleviation and improvement of defects, the forestalling of disturbance of health by disease and the protection of community health. An adequate nosology requires a paired diagnosis including the basic health (constitution or personality) of the individual in addition to the active disease process so that treatment can be properly focused on each.

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SOME OUTLINES OF FORENSIC PSYCHIATRY IN NORWAY[1]

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While in many countries philosophical points of view are still prevailing in the legislation concerned with crimes committed by mentally abnormal individuals, Norway has since 1929 used laws based on biological-medical principles. This however concerns only the criminal behavior of such individuals. Legislation on civil rights is still characterized by the philosophical concepts of the relation between behavior and mental state. Before this group I think it is superfluous to go into detail as to the principal differences between the medico-biological and the philosophical systems of legislation. It should be sufficient to mention that in countries where the biological system is practiced, the legislation restricts itself to stating only which types of mental disturbances or disorders shall be subject to special legal procedures irrespective of possible relation between crime and mental state. According to this legislation, criminal responsibility is related only to the question of whether at the time he committed the act charged the offender is supposed to have been psychically normal or, instead, in a *state of unconsciousness or insanity* (as defined below). Another consideration is the question whether he has displayed symptoms of *reduced consciousness* or other mental defects, specifically stated and somewhat varying in the legislation of the countries practicing this type of legal procedure. In this jurisprudence there will be no questions related to the M'Naghten formula, as to whether the defendant at the time of committing the act was "laboring under such a defect of reason from disease of the mind, as not to know the nature and quality of the act, or, if he did know it, that he did not know he was doing what was wrong." Where the biological system is practiced, the only task for the psychiatric expert is to provide testimony based on a history and a psychiatric examination sufficient to define the mental state that characterized the defendant at the time when he committed the offense and at the time of examination. Questions about the insight of the defendant, or whether there were any relation between the mental state and the crime, are of no interest to the court and at any rate have no influence on the conviction. Neither are the experts during the trial asked to answer such questions.

In the procedures based on the laws as practiced in the U. S. A., the question of responsibility of the offender is not definitely decided upon the statement of a special psychic abnormality. It is the task of the court to decide the question of responsibility according to the presence or absence of the special conditions included in the laws. As a consequence, the psychiatric expert has here quite another and more difficult task. This, again, is not the only consequence of the different ways of evaluating the responsibility of an offender; the whole procedure for the court and the relation between the lawyers and the psychiatrists seem determined by the procedure adopted.

Norway has some few paragraphs in the criminal law concerned with the abnormal mental states requiring special legal procedures. One is No. 44, stating that no defendant considered *insane or unconscious* at the time of committing the offense may be punished. These are the only 2 mentally abnormal states that necessitate the legal judgment of *absolute irresponsibility*. Consequently, if 2 psychiatrists agree that a defendant was insane or unconscious at the time of the offense, the court will as a rule accept this statement and, if so, it has to withhold punishment. Before I discuss the meaning of the terms "insane" and "unconscious" as used in the Norwegian criminal law, I think it may be useful to say a few words about the functions of the psychiatric experts in forensic psychiatry in Norway and the ways by which any disagreements between the psychiatrists are settled. On this point there is quite a big difference from the practice in most of the United States. In Norway the prosecution of

[1] Read at the 109th annual meeting of The American Psychiatric Association, Los Angeles, Calif., May 4-8, 1953.

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an offender is performed by the public prosecutor, called the State Attorney. If, according to what emerges from the documents procured, or through special information, he finds that there may be doubt as to the mental state of the offender, he will propose to the chief of police in the county of the offender that the latter be submitted to preliminary mental examination. The chief of police himself may also arrange such preliminary examination. In Norway there are several psychiatrists in the different parts of the country who are licensed by the Department of Justice to perform psychiatric examinations in forensic cases, and these psychiatrists the police may ask directly to perform such examinations. If no such authorized psychiatrist is available, the court may call for other psychiatrists or medical doctors who are supposed to have the capacity of acting as experts even if they are not authorized. For such preliminary examination usually only one expert is called. If he finds that the offender in question is mentally normal, and that there is no need for further observation, the case will be prosecuted without any further psychiatric examination. If the offender is found to be obviously insane, he will as a rule, if it is not a question of a serious crime, be sent to a mental hospital through usual administrative procedures, without any trial taking place. Such administrative procedures can take place only *before* any formal accusation is presented by the State Attorney. If the expert finds that there may be a doubt as to the mental state of an offender, the court will as a rule provide, after the decision as to accusation has been taken, that the offender be examined by 2 experts. In Norway it is the chief of police, the State Attorney, and the different courts, that may call experts to perform examinations in forensic cases. As mentioned, the psychiatrists called are usually authorized for this purpose. Those who wish to act as legal psychiatrists must send an application to the Department of Justice. In Norway we have a Commission on Forensic Medicine, whose members are all medical doctors. There are 2 groups, with one chairman in each of them, the one group dealing with the usual crimes against the body (pathologists, gynecologists), and the other one the forensic psychiatric group, consisting of 3 psychiatrists with long experience in forensic psychiatry. The application for authorization as a legal psychiatrist is sent to the Commission on Forensic Psychiatry, which decides whether the psychiatrist in question has the necessary qualifications. The mental observation of an offender may take place wherever it is convenient, in the jail, in a general or a mental hospital, or the patient may, if he is not committed, be met at the office of the psychiatrist. If the 2 psychiatrists agree that there is still a doubt as to the mental state, and if they think that this doubt can be resolved by prolonged observation in a mental hospital, the court according to a special paragraph in the law, can decide that the offender shall be admitted to such a hospital for a certain time.

Usually the 2 experts appointed by the court will try to agree upon the conclusions, and they generally do. They give a common written report including all the collected material of importance to the conclusions, and they give the conclusions arrived at with terms used in the law itself. If the psychiatrists agree, both of them sign the report; if they disagree, they usually write a common report but give their conclusions separately. Because of the existence of the Commission on Forensic Medicine there is as a rule no disagreement as to the final conclusions in the psychiatric testimony. A copy of all such reports is sent by the psychiatrists to the Commission. If there is any disagreement between the psychiatrists, or if the conclusions and premises in the report are not tenable according to accepted outlines in Norwegian forensic psychiatry, the Commission will discuss the matter with the 2 psychiatrists. The psychiatrists are in no way obliged to agree with the Commission, but as a rule they change their conclusions if the Commission makes it clear that there is no solid basis for the conclusions arrived at. I think the action of the Commission on Forensic Psychiatry is very fortunate in several directions. Firstly, any disagreement between the experts can be settled before the case is presented to the court. So in Norway there is never any fight in court between the psychiatrists. Next, the fact that the final conclusions in the report are accepted, or in some few cases not accepted, by the Commission before the trial

and sentence take place contributes much to the practice that the court, so to say, always upholds the conclusions accepted by the Commission on Forensic Psychiatry. This is *always* the case if the question is one of insanity or unconsciousness of the accused at the time the offense was committed. As to the other mental abnormalities, the court will not oppose any conclusion at which the experts have arrived unanimously, but it does not always happen that the court is of the same opinion as the experts regarding the necessity and advantages of detaining the offenders in question, a procedure to which I will soon return.

I have been a member of the Commission on Forensic Psychiatry in Norway for 16 years and chairman for the last 5 years, and in all this time it has not happened that the court did not accept the conclusions of the psychiatrists as to insanity or unconsciousness. The judges in Norway seem fully aware of the fact that, since they have no psychiatric training, they cannot argue against the positions maintained by experts in psychiatry, and since in the medico-biological system there is no question as to the insight of the offender, the court is obliged to withhold punishment from the defendant if it accepts the conclusions of insanity or unconsciousness. According to the so-called "detention paragraph" offenders who are considered to have been suffering from insanity, unconsciousness, or some other specifically stated mental disorders at the time of the offense can be detained instead of punished for as long a time as they are supposed to be dangerous to society. Such detention can take place only if the court—as a rule in accord with the opinions of the experts—assumes that there is an *actual risk of repeating one or another criminal act.* The term *insanity* corresponds fairly well to the conditions in clinical psychiatry which qualify a mentally sick person to be certified. The requirement in forensic psychiatry is however that there shall be no doubt as to the state of insanity. If such doubt still exists after the application of all means available for resolving the question, the conclusion must have a negative form. In forensic practice this does not mean much, inasmuch as the conclusion in these cases usually will be that there are, at any rate, signs of chronically weakened mental abilities. Usually this last-mentioned category is not punished, but admitted to a psychopathic hospital for criminals. So the difference between an offender declared insane and one declared suffering from chronically weakened mental abilities is usually that the insane person is detained in a mental hospital and the chronic mental defective in a psychopathic hospital. This is, at any rate, the idea in the law, even if sufficient psychopathic hospitals are not yet provided. There is however a principal difference in that while the insane person under no circumstances may be punished, it may happen that mental defectives are punished. It also sometimes happens that these last-mentioned offenders get a relatively short time of imprisonment or detention, at first offense usually 5 years. In these instances the sentence varies somewhat according to the circumstances of the criminal act and the testimonies of the experts.

The other mental condition which, according to Norwegian law, absolutely frees one from punishment is the state of unconsciousness—a term used in Paragraph 44, which has the following wording: "An act shall not be subject to punishment, if the performer at the time of action [*i.e.*, commission of the offense] was insane or in a state of unconsciousness."

Consequently the experts here also need only state whether the defendant must be supposed to have been in such a state of unconsciousness. This is a state of mind that does not correspond to any clinical condition. It includes of course the usual types of clinical unconsciousness, as met in the different comas for example, but these states have no *forensic* interest, as the individuals under such circumstances are completely incapable of acting. The "state of unconsciousness" however, is a clear *forensic* term including a series of abnormal mental states characterized by peculiar conduct associated with a total loss of memory. Many constitutional types like the hysterical, schizoid, and epileptic seem to dispose to such reactions, but a state of unconsciousness may also be brought about by trauma of the brain, intoxications, and also *episodically* in some psychoses. While the court will uphold without exception the conclusions of the experts as to the

question of insanity and unconsciousness, the situation is somewhat otherwise in the matter of the mental states which in the law are associated not with withholding of punishment, but with a reduced penalty and frequently with the replacement of punishment by detention. These are the states already mentioned, termed in the criminal law (No. 39): *"Defectively developed or chronically weakened mental abilities."*

Defectively developed mental abilities include, first and foremost, the mental defectives of all degrees, whether these states are inborn, caused by injury at birth, or acquired in the first years of childhood. Next the term includes also all the states characterized by constitutional inferiority usually called psychopathies. The other term in the same paragraph—the *"chronically weakened mental abilities"*—includes all the individuals who, because of damage occurring after the time of early childhood, are considered as suffering from weakened mental abilities due to many different causes. Here we meet with individuals whose nervous systems have been weakened through chronic alcoholism and drug addiction, brain trauma, and brain diseases not necessarily resulting in psychotic disorders. Many severe neurotic and senile disorders will be included in this group, as will be all cases in which there may be a doubt as to whether they should be looked upon as expressions of insanity. Also individuals who are considered as "cured with defect" after attacks of psychoses are looked upon not as psychotic but as individuals with chronically weakened mental abilities.

The law on civil rights is somewhat different. As to marriage, divorce, and annulment, the medico-biological system is also practiced, inasmuch as here the only question is whether either of the partners was suffering from insanity at the time of marriage. If this is established, the other partner may claim the marriage annulled. There is no question whether the partner in question was capable of giving his free consent or whether he lacked the ability to understand the implications of marriage. The insane person himself may also apply for annulment on the basis of insanity. The question of degree of intelligence plays no role as to capacity for marriage. We think however that this is a lack in the law, and a commission, which is at present working upon proposals for changes in the law on mental disorders, will recommend that some such requirement be made.

Divorce can be obtained if one of the partners has been insane for more than 3 years "without reasonable outlook for recovery."

Now, as to the other civil laws concerned with mental disorders, there are some in which the medico-biological system is not practiced. Thus, as *to the competency of making contracts and doing business generally,* an insane person is not, as such, considered incompetent. Here the question is whether he is supposed to have the necessary judgment and insight. To have him declared incompetent it must be demonstrated by proof that he is incompetent. No special mental disorders are as such associated with incapacity to make contracts and to do business; the question is decided in the individual case, usually according to the ideas of the psychiatric experts.

The same practice holds in the question of the last will and testament. Here we have the same considerations; even an insane person may be capable of expressing his last will and so be looked upon as competent to sign a testament. It is of course not often the case that an insane person has the ability to examine all the aspects necessary to make a valid will. He must know the nature and extent of his property; he must know that he is making a will, and the sense of it; and he must especially have good and acceptable reasons for the bequests listed in the testament. But we have had some few cases in Norway in which a testator is declared competent even though he was looked upon as insane by the psychiatric experts. The decisive thing is that the testament as such is reasonable and seems sound, all factors taken into consideration.

There are of course many other details in the criminal law, as well as in the civil law, concerning the attitude towards individuals suffering from mental disorders. Time will not allow me to enter into these, but the outlines given are the principal ones, and I will now add only a little about how the practice of the medico-biological system has turned out. All in all, there can be no doubt that

lawyers as well as psychiatrists have been well satisfied by the revision of the criminal law, resulting in, among other things, a modification of the conclusions in the psychiatric testimonies, according to which the psychiatric experts now have only to state the existence or not of the mental disorders specifically mentioned in the criminal law. Also the possibility of detaining mentally defective offenders is an important step in the right direction for prevention of relapses and for more humane treatment of these offenders. As to the conditions in Norway it was very unfortunate that the law was passed before the institutions necessary for effectuating it were provided. As a consequence, statistics on detained offenders in the first 10 years of the law's existence show no reduction in the number of relapses. Two years ago we got the first psychopathic hospital for criminals with mental disorders and it is hoped that this event will bring about a reduction in relapses. The experience in Norway in this respect serves as a warning against enacting laws before the institutions are provided for putting them into effect.

While the medico-biological system as practiced in Norway has proved to have several advantages in the most common cases of crime, in some cases, psychodynamically more complicated, the system seems too schematic and inappropriate. Thus it may be very difficult to decide whether a psychodynamically complicated neurotic reaction should be looked upon as the expression of "chronically weakened mental abilities," or whether, for example, a constitutionally abnormal personality with high intelligence should be regarded as one with "defectively developed mental abilities."

In connection with the trials of traitors in Norway during the last war we had some cases illustrating the difficulties in the administration of the law. For example, Quisling was submitted to preliminary mental observations. He was a peculiar personality with many abnormal character traits, increased self-estimation, and with many curious ideas. The psychiatric experts, however, could not find that these abnormalities could be included in the terms used in the law, and as a consequence he was found responsible and shot. In one of our most fanatic intellectual traitors, the great author Knut Hamsun, the psychiatric experts concluded after 3 months of mental observation that he was suffering from chronically weakened mental abilities. This term was scarcely appropriate to characterize a personality that was in many respects so outstanding, but as he had suffered from 2 attacks of apoplexy with lasting defects, the experts had to keep to the terms used in the law.

The conclusions in these psychiatric testimonies have been subject to much official discussion, especially on the part of people who have no idea about forensic psychiatry. The discussion has stated that the terms used in the criminal law sometimes are inappropriate in characterizing the specific mental state in question, and there has been a suggestion for revision towards more elastic terms. This, however, does not mean that we intend to introduce any philosophical evaluation of the relation between the mental state of the offender and the criminal act. It means only that the descriptions of the mental states that can be subject to special legal procedures are to be made more elastic so that they can be applied also to psychodynamically more complicated mental disorders. The medico-biological system itself, however, will not be changed.

THE TREATABILITY OF THE PSYCHOPATH[1]

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The title of this paper can be read as having 2 meanings: either treatment of the psychopath is a matter of substantive psychiatry or it is a question for psychiatry to establish. If one assumes the first alternative, clinical discussion would involve experiences supporting the statement of treatability; if the latter position is assumed, considerations contradicting the assumption of treatability would be advanced. Since this subject is debatable, I should like to exploit an avenue of logical approach that relates to both the positive and negative aspects of the proposition, namely, an exploration of those factors that impede treatability of the psychopath. Hence resistances impeding treatment of this group both in the subject and his therapeutic environment will be studied in the hope of clarifying this difficult and controversial therapeutic area.

In this discussion several basic postulates are used which require statement at the outset. First, the term "psychopath" is employed in its traditional sense to cover descriptively those individuals whose behavior habitually visits depredation upon the letter and spirit of our social institutions, laws, and customs. In so doing such individuals run afoul of the law or disturb basic social interrelationships in certain typical ways, as aggressive criminals, swindlers, malcontents, maladjusted persons in industrial, military, commercial, or marital situations. Technically neither insane or mentally defective, psychopaths are not excused for their behavior and hence gravitate invariably into legal or punitive situations or are shielded from these situations by an irritated and distracted society. Second, let us agree with Henderson(1) that the clinical criteria of instability, impulsiveness, egocentricity, emotional callousness, unmodifiability by punitive or corrective means, and antisociality justify a diagnosis of the "psychopathic state." Thirdly, we can also agree that specific constellations of emotional deprivations, etc., in early relationships are tremendously important and even determine the form of subsequent ego defenses in the character structure of the individual psychopath and that this resulting defensive structure or "character neurosis"(2), is egosyntonic. As a final operational statement let us acknowledge society's characteristic reaction to the individual in question to be attuned to the psychopath's eventual and permanent incarceration.

These basic postulates provide a functional structure upon which the psychologic relationship of psychopath to society is hung. It is here that we may look for the outstanding factor that appears to impede treatability of this group. Apparently this is the diagnostic concept itself; or stated another way, the unconscious sociopsychological prejudice that has crept into the diagnostic concept. The struggle to delineate the extraordinarily difficult clinical subgroupings of so-called psychopaths has resulted in phenomenological descriptions and pathological assumptions that entail these very unconscious reactions. It is apparent the century-long nosological struggle with these troublesome people has left semantic scars on medical thinking, the psychological consequences of which require most careful exploration. Briefly stated the life span of the psychopathic idea has been characterized by the "question-begging assumption of a constitutional-defect etiology"(3). This view is suggested by the history of the psychopathic personality concept, worked out with diligence by both Maughs(4) and Cleckley(5). From Pritchard's "moral insanity"(6) (1835) to Koch's(7) (1880) and Meyer's(8) (1904) "constitutional psychopathic personality" and Kahn's(9) (1928) "quantitative impulse peculiarities" among psychopaths, many classifications, *e.g.*, Kraepelin(10) and Schneider(11), have stressed quasi-constitutional factors. The central theme of the psychopathic concept united a constitutional difficulty in the sense of a predisposition toward impulsive, uncontrolled behavior with an implied psychobiological in-

[1] Read at the 109th annual meeting of The American Psychiatric Association, Los Angeles, Calif., May 4-8, 1953.

feriority. A vitally significant change in accent was introduced by Alexander's(12) concept of the "acting-out, neurotic" character and the dynamic view of the "instinct-ridden" character with his difficulties in identification. Nevertheless this dynamic accent has not modified the characteristic social-psychiatric attitude towards the psychopath. It is freely conceded that these distinctions had real value in psychiatric thinking during the eras in which they were enunciated. But, one tries with difficulty to disengage the moral (evil) implication from the diagnostic concept as it has been used by psychiatrists, legal men, and the lay public now and during the past 100 years.

Textbooks of psychiatry(13) deal scantily with the psychopath, and monographs on the subject are apt to be limited to precise descriptions differentiating psychopaths from neurotic or psychotic individuals. With few exceptions there is little discussion of treatment for this group in the standard medical and psychiatric literature. This therapeutic paucity is without doubt due to intrinsic difficulties in the potential psychopathic patient for forming emotional relationships in treatment. Nevertheless, one cannot escape the conviction that attitudes within the profession reflect a persistent anachronistic feeling toward psychopathic persons, a survival of society's former unconscious reaction toward the insane, for the most part now happily resolved. In the case of the psychopath, psychiatry has not mitigated this attitude, chiefly because as members of society psychiatrists themselves are involved in the same unconscious rejection of psychopaths that society openly admits through its punitive attitudes. Although well-motivated in an earlier period, the terms "constitutional psychopathic inferior" or "constitutional psychopathic personality" are proof enough of the semantic ballast with which these individuals, so described, are weighted. Since each member of society is unconsciously identified with aggressive, rebellious, or asocial impulses released overtly by the psychopath, the former defends himself against the encroachment of his own aggressive impulses by projection to the person already in trouble with society. The psychopath bears the full weight of social reaction euphemistically couched in the ambivalent term "corrective treatment." The same air of unwilling finality and faint sense of righteous grievance which accompanied announcement of a diagnosis of "merely hysterical or "just a neurotic" a generation or two ago, now is associated with the phrase, "one of those psychopaths." The congealed hostility behind these phrases was and is an expression of society's unconscious preoccupation with deep and persistent conflicts over acted-out behavior. The consequences of this semantic evolution are that control of the psychopath rather than understanding, incarceration rather than hospitalization, restriction rather than treatment have become officially accepted, even lauded, attitudes.

There are further psychological consequences of this interplay between unconscious defenses against society's own aggressive impulses and reaction formations within the body politic, one of which it is claimed is the semantic abstraction "psychopath." Another is the unconscious reciprocal semantic influence of the diagnosis on asocial persons themselves. This hypothesis was suggested by Cleckley's observation that psychopathic personalities are in a real sense cases of *semantic disorder* or *dementia*(14). The "structural image of sanity" and the "mask of sanity" which Cleckley describes as the hallmark of the psychopath, utters language which sounds "normal" but is without affective substance and unintegrated into the "whole human reaction." It is reasonable to assume that the psychopath's semantic defect is a defense against the hostile connotation embedded in diagnostic terms flung at him. The commonly observed semantic superficiality, rather than being an inborn constitutional trait, may be a diffused reaction to the mass of feeling that has filtered through the centuries from society and its legal representatives to the asocial individual. Emotionally toned words thrown by society at the criminal act as an invisible boomerang, curving back with redoubled force(15). The weapon of society is reconverted into a defensive weapon for the psychopath.

The rebellious, maladjusted individual in unconsciously perceiving society's hostility reacts by withdrawing into a psychological community (the gang), whose "semantic dementia" is a common symptomatic defense.

The defensive weapon serves a double-edged purpose, satisfying both the aggressive feelings of the psychopath towards society and his moral masochism. The nucleus of the conflict within the psychopath revolves around a moral masochism that keeps him in a position where he will be constantly hurt and derided, while at the same time preserving his own psychologic autonomy. This masochistic position was originally a refuge from rejection or denial of emotional needs in a very early (oral) period. As Berliner(16) has stated it, the moral masochist is "presenting an old unpaid bill for affection." However, the psychopath is not aware of his masochistic attitude and by perpetual rebelliousness fights against his unconscious needs while he achieves masochistic gratification by his position of pariah in society. In this sense, to paraphrase Lindner(17), the Rebel *has* a cause.

In the practical therapeutic situation the psychopath meets the therapist with distrust; he reacts to psychotherapeutic attempts with defiance, acting as society unconsciously wishes him to—as an irretrievably rebellious person. It is a clinical axiom that rapport with an individual of this type is soon colored by tension, antagonism, and rapidly developing mutual disinterest. If the psychopath cooperates at all, it is with an air of playful grimness(18): he grudgingly dabbles in relating his feelings and thoughts, but he is not "in" the situation. Indeed, experience with these persons allows one to sense the same aggrieved undertone and distant finality in the psychopath's attitude that has been observed in society's (and psychiatry's) relationship with him. The temporary reaction of playful tolerance and amused lip-service to psychiatric techniques displayed by the patient is a mirror image of reactions to which he has been subjected. The boomerang has completed its flight. If the therapist adopts a passive attitude, grim playfulness does not suffice, for the threat of transference development with impending arousal of old dependency feelings mobilizes intolerable anxiety and an impulse toward flight. The patient denounces the treatment and quits. On the other hand if the therapist demonstrates hostility (for which he usually has ample provocation) through veiled contempt or concealed anger, the psychopath's highly sensitized intuition places the former among his social enemies.

The treatability of the psychopath turns upon a simultaneous mitigation of the reflection within the therapist of society's attitudes and a dissolving of the potential patient's character defenses. This therapeutic dilemma calls first for an examination of our common negative countertransference attitudes towards the group, and secondly for a method of dissolving the psychopath's character defense as expressed in his behavior. The first problem is met by an inner scrutiny which usually results in the development of an empathic feeling by the therapist for the motivating forces within the psychopath. The second is most easily handled in group therapy where a play technique is used.

Experience has shown that the ever-present antagonism to authority lies upon a basic unconscious dependence upon the very authority figures against whom the psychopath rebels. A firm authoritarian(19) attitude toward such individuals minimizes the anxiety generated by a threatened exposure of this dependence, so strongly reviled in the conscious statements of the asocial person. The overt authoritarian attitude on the part of the therapist realistically matches the psychopath's reading of the therapist's social attitude, and with its counterpart of permissiveness, reduces anxiety sufficiently to allow the patient some objectivity towards his inner life. The psychologic desiderata of firmness within which lies permissivness and the play experience subserve both horns of the therapeutic dilemma. In psychodrama the therapist indicates his own perception of psychopathic defensiveness by using the language, the manners, and the attitudes of his patients and their play-currency.

Play is essentially a method of mastering anxiety-provoking situations by re-enacting them. It can be regularly observed among children that their play encompasses situations which involve anxiety-laden events (playing "house," "war," or "doctor") and their consequent mastery. Play is a mechanism used by the ego to siphon off, and simultaneously gratify, dangerous instinctual impulses: it is an oblique approach to an instinctive urgency, satisfying simultaneously

the wish to experience a dangerous emotion and the mastering of affective tensions connected therewith. Hence play encourages and at the same time attenuates frightening impulses. Through a playful atmosphere which supplies an "as if" postulate, the ego of the patient, ordinarily intolerant of criticism attributed by it to the therapist, can begin to obtain objectivity into the emotional life of the psychopath and his fellows. The patient may act "as if" society accepts his aggressive, rebellious impulses. The "as if" postulate woven into the staff's attitude protects the psychopath from reality with its painful hostility: his ego is bribed by it to accept a relationship with the therapist without jeopardy to his position as rebel.

In therapy of this type the emotional environment thus achieved has the function of unfreezing the psychopath's defensive character front by presenting facsimile of reality and desensitizing the frightening social atmosphere that surrounds the psychopath. In a controlled setting where the play impulse is made socially acceptable the individual experiences aggression, dependence, and hostility, mastering his feelings on the same basis as in child play. As quantities of emotion are expended through catharsis in the play where specific, anxiety-laden situations within his own life and those of his fellow patients are re-enacted, the defensive impulse to flight decreases and a degree of transference does develop laterally to other patients and also to the therapist and staff.

These remarks are based on experiences relating to 14 months work with sexual deviates treated by psychodrama(20) in a state hospital and have been partially validated among a group of institutionalized psychopathic children with whom psychodrama has been employed for a shorter period. It has been striking that the phases of reaction to the therapist on the part of these young disturbed boys paralleled that seen among adult sexual psychopaths. As described elsewhere, the first mass reaction to group therapy among sexual psychopaths was fear of being considered insane; precisely the same thing occurred among the boys. This was followed in the adult group by a release of tension and an intragroup hostility and wish to dominate others. Among the children it was signalized by discordant, noisy, uninhibited behavior. In both groups it signified acceptance of dependence on therapist and staff. This thawing period was followed by an aggressive, reality-testing phase of the social and parental attitude of therapist: among the adults it took the form of sarcasm, alternating with greater freedom to act out their problems; among the children there arose penetratingly hostile attitudes as to the sexual implications of the therapist's interest, interpretable as a masochistic wish to be passive and inferior in relation to adults. Later, jelling around intrafamily patterns occurred among the adults; the children gave way to alternate hostile and warm feelings for the therapist. In both, the elements of authoritarian firmness, permissiveness, and the emotional currency of playfulness was an essential preparation for expressions (and interpretation of) ambivalent feelings and social testing.

Another comparable series of incidents occurred shedding light on the complex psychological interrelation of the psychopath and his society. In experiences with the adult group, the community obtruded itself by a surge of hostile feelings. Particularly irritating to the local public (medical and lay) was the observable reduction in feelings of degradation by the sexual patients. The sudden demand for restriction of sex patients under treatment became overwhelming. Finally the therapeutic program was stopped.

This public participation is worthy of note. It consisted of a series of psychological reactions—anger and fear, rationalization and projection, hostility and vengeance, with final rejection of the entire concept of treatability of the psychopath. Similarly in the younger group, after a number of sessions, the same series of emotional reactions occurred in a segment of society immediately concerned with this group. Fear developed at the freedom, noisy behavior, and permissiveness of the therapeutic environment, then confusion as to the therapeutic aims, rationalizing the anger and vengeance and soon the order to halt sessions.

This reaction can be considered a specific social-psychological syndrome occurring in a social group that has not worked through its unconscious biases toward rebellious individuals. I would call this behavior a *socio-fugal*

reaction, an unconsciously motivated defensive mechanism. The closeness of psychopaths to improvement, *i.e.*, a breaking down of their rigid character structure and a loosening of their hostility to society through a type of transference, was the signal for an unconscious reaction of fear and anger leading to social action, *i.e.*, cessation of treatment. Society demonstrates its unconscious feeling to the psychopathic character by the *socio-fugal* reaction which has been an important impeding factor in the total program of treatment of the psychopath. The situation develops a sort of emotional incompressibility analogous with, if one may be allowed the figure of speech, Pascal's law of hydraulics. The psychopath hides behind his conglomerate defensiveness and society hides behind its *socio-fugal* reaction. This mutual incompressibility is probably the most serious obstruction to psychotherapy of the psychopath notwithstanding the rigidity of the patient himself towards the development of a transference relationship and the reality problems facing a society which must protect itself.

In the light of these considerations it seems that the task of therapy is not only to help unfreeze whatever degree of defensiveness exists within the psychopath toward objectifying his interemotional problems, but also to understand society's vital role in this interrelationship. Successful work with this challenging group depends on a demonstration to society and the therapeutic staff of the socially induced defensiveness of psychopaths whose instinctual equipment is so similiar to our own but whose use of it is so different.

One wonders, in relation to this complex problem, whether psychiatry has not been frightened by the sardonic, snarling mask of the psychopath, behind which lies the frightened, lonesome face of a neurotic character. It is the duty of psychiatry, as it should be its pride, to bring to bear on the psychopath the sympathy and therapeutic skill that it offers neurotic and psychotic sufferers. The task so indicated is one to which some of us might well dedicate our science.

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PSYCHIATRIC DISTURBANCES FOLLOWING AMPUTATION[1]

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Among the many problems involved in amputation are the anxieties provoked by the experience. These are associated with the individual's past history of emotional and physical injury and with the special meaning which the amputated part has come to hold for him. In the task of adaptation to the loss of body parts it is not surprising that alterations in attitude, mood, and behavior often occur. This was shown by an earlier psychiatric survey of wounded men in whom a high incidence of previously unrecognized emotional disturbances was found. It was in an effort to examine more closely the nature of these anxieties and the defences mobilized against them that the present study was undertaken.

PLAN OF STUDY

Sixty-six patients who had undergone amputation of an extremity at the Walter Reed Army Hospital, Washington, D. C., or the U. S. Naval Hospital, Bethesda, Md., were studied. Fifty-two patients were interviewed from 1 to 4 times; 10 were seen in daily interviews for 2 weeks; 4 were studied in frequent regular interviews for 3 months or more.

Comparative data were obtained from 21 patients with organic diseases of the central nervous system in whom loss of function had occurred in one or more extremities. Causative diseases included cerebrovascular accidents, brain tumors, and degenerative disorders. These patients were seen in 1 or 2 interviews. Draw-A-Person tests were obtained with most patients in both amputee and neurological groups.

In addition a laboratory method, to be described later, was used for estimating disturbed perception.

FINDINGS

Of the 66 amputees examined 10 were referred for psychiatric consultation, of whom 3 were psychotic. The remaining unselected 56 patients, although at times manifesting disciplinary problems, exhibitionism, and excessive drinking, were on the whole cooperating well with the treatment program. Initial hesitancy in seeing the psychiatrists was, in most cases, quickly overcome; and some patients, not referred for consultation, requested interviews. Material elicited from interviews with the entire group revealed certain characteristic preoccupations, namely, anxieties over separation, castration, aggressive feelings, and passivity. Various defences were shown to be operating against these disturbing emotions.

Denial was the most prominent defence and was manifest in verbal statements, mood, or behavior. Disability was rationalized by such statements as "You don't need two legs except for running—you see more when you walk slowly." Mildly euphoric moods sometimes denied anxiety over loss; necessity for reality adjustment was denied in withdrawn and regressive attitudes in which wishes for dependency were thinly concealed; grandiose statements of physical prowess masked fears of impotence, sterility, and passivity. In reckless, hypomanic behavior, such as racing through corridors in wheel chairs, feelings of impaired motility were denied.

Displacement of feelings from the genital organs to the amputated extremity became evident. One patient when talking about his phantom limb always handled his genitals. Phantom limb sensations were sometimes associated with sexual arousal. A patient, transferred to a military hospital in an irritable, confused state following a head injury and amputation of the left arm stated when asked what his trouble was, "My penis is tired." He denied any other injury.

Projection as a mechanism of defence was commonly encountered. Several amputees reported that when seeing healthy people on the street they sometimes mistook them for

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other amputees. A Korean veteran complained bitterly that people did not appreciate wounded men and he confined his associations to other amputees. He became increasingly dissatisfied with the hospital, and successfully pressed for discharge before completion of surgical treatment.

Identification with a significant person in the patient's life, one who had had either an amputation or a disease of an extremity, was occasionally observed. Pain in the amputated stump was denied by a patient who complained of persistent pain in the opposite knee for which no surgical explanation could be found; he stated that his mother had suffered from arthritis of that knee joint for many years. Another patient had rheumatic pains of the phantom leg related to damp weather. This reminded him of his father's similar rheumatic pains. Identification with the physician to whom magical qualities were ascribed and with other patients was noted.

In the operation of all these defences the phantom limb was of great importance. All but one patient admitted having phantom limbs and it was felt that this was a conversion-like phenomenon involving denial of loss of the extremity. The intensity, persistence, and extent of distribution of phantom limb sensations and the motility of the phantom limb itself were all found to be directly proportionate to the patient's anxieties. Sometimes it seemed that all of those conflicts aroused by the amputation were funneled into the phantom. Contrary to previously expressed opinion it was found that the phantom limb did not gradually contract and disappear into the stump, but, without changing its size, faded out of awareness. Often its presence could, however, be restored by conscious thinking directed towards it or by the appearance of anxiety. In one unusual case changes in shape and posture of the phantom occurred with changes in the patient's emotional state. This accident-prone man following amputation had manifested an elated mood and had felt his phantom limb out straight. Three weeks after therapeutic interviews were undertaken there was a 4-day period during which the patient acknowledged his anxiety and depression and talked of the painful circumstances of the accident itself. During these 4 days the phantom leg was felt curved and mashed as it had been in fact when, following the accident, he lay out on the wet road crying for help. A patient, who had experienced a brief psychotic episode and who was ordinarily unaware of his phantom, stated that it regularly reappeared with orgasm.

A sailor, whose history indicated considerable ambivalence toward his mother with a conflict over homosexuality, developed 2 weeks following operation a painful burning phantom limb. At the same time he reported a dream in which an older nurse was performing fellatio on him and biting his penis. Several of his buddies awaited their turn for the same sexual experience. In the dream the patient's leg was intact. He stated that prior to his dream he had been talking with other men about the nurse, wondering if she was too old for sex. He produced a love letter from a girl friend and said: "This proves I've still got *it*." Previously he had asked the physician if his girl friend was a lesbian and had expressed fears of loss of potency.

Dreams of the amputees characteristically showed the presence of castration anxiety, aggressive feelings, and wishes for dependency. The wish for dependency at the expense of castration was suggested by the dream of one patient in which a movie actress was telling him that she was really a motherly soul; in the dream the patient was amputated. The patient reported, however, a second dream in which he was playing baseball and his body was intact. Generally the amputees studied dreamed of themselves as not amputated.

Concern regarding the disposal of the amputated limb, whether it was buried or burned, was expressed by some patients. Beliefs which magically related such disposal to the causation or alleviation of phantom limb pain were also reported in interviews. Usually the patients pooh-poohed these beliefs and were reluctant to mention them to the physician for fear he would think them crazy; they stated, however, that they were common subjects of discussion among the patients themselves. A soldier said that he had been told that an amputated limb must be buried upright if phantom limb pain was to be avoided; he thought there might be something to the belief. It is noteworthy that in the folklore of many countries beliefs exist that the amputated limb should be disposed of in a known, safe place so that later all of the body can be buried together.

Stories have often been told of magical restoration of amputated limbs by God or by malignant individuals.

Draw-a-Person tests showed, in practically all amputees, alterations in the drawing of the extremities. Those patients who were adapting favorably often drew the amputated extremity smaller or omitted any extremity. Those who were adapting poorly drew the missing extremity larger than the opposite limb or with increased markings.

In the perceptual tests several Ames demonstrations were used. We would like to mention specifically the Leaf Room with aniseikonic glasses. Aniseikonic lenses produce distortions in binocular vision without significantly affecting any other aspect of the retinal images. This results in perceptual conflicts which can be resolved only by a complex reorganizational process involving defence mechanisms that we observe clinically.

Experiments have shown that the experience of anxiety on viewing amputees markedly affects perceptions. In one experiment the subject views an amputee and a normal man standing side by side. The majority of subjects report that the image of the amputated man is less distorted. In another experiment the subject looks through the lenses at a normal man and sees him markedly distorted. The man then gets upon crutches or conceals his arm as though he were amputated. He is then seen by the observer as less distorted.

At present our working hypothesis is that failure to distort is a manifestation of the unconscious denial of mutilation. Although this study is only in its initial stages, examination of data thus far collected gives promise of showing how particular defence mechanisms operate against the anxiety attendant on body alterations.

Among the patients with neurological diseases was a considerable number of old, hemiplegic men who were apathetic and uncommunicative, making it difficult to obtain historical data. It was felt, however, that while their apathy was influenced by their organic disease, it was also a manifestation of denial. In the neurological group as a whole, evidence of anxieties, more concealed but of a similar nature and with defences similar to those shown in the amputees, were found. Practically all patients denied any sexual problems; one young man with a hemiparesis showed a euphoric mood and stated that there had been a marked increase in his sexual potency since his illness. Manifestations of identification with significant friends and relatives who had had similar disorders were often seen. Projection, especially of aggressive impulses was common. In the concern by some patients over possible mental impairment there was a suggestion that a special and displaced significance was accorded the brain. One young man with no memory impairment compulsively tested his memory of common objects. Dreams of dying were reported. There were instances in which the brain disease had made impossible a continuance of life-long reaction formations. One 58-year-old man with a long history of hypertension had combined an intensely ambitious drive with a markedly dependent attitude upon his wife; he begged to leave the hospital so that he could work to save both his city and summer homes. While denying by this request the gravity of his hemiplegia and coronary thrombosis, he dreamed that all of his household belongings were destroyed.

Instances were observed that suggested the possibility of awareness of the cause of cerebral disease. A patient had developed a right hemiparesis due to a head injury sustained years earlier. In the first interview he reported a dream that reproduced the circumstances of the injury, including his being struck over the actual areas of brain damage. Yet he was consciously unaware of the fact that his paralysis had resulted from the injury.

One instance of anosognosia of the left arm was observed. This patient, who had sustained a left hemiplegia due to cerebral thrombosis, was disoriented for 3 days only. For several weeks, however, he denied his left arm was his own and accused hospital corpsmen of placing another arm there beside him. He developed a phantom left arm which was mobile though usually lying flat across his chest. He felt that this phantom arm was cut off half way between the elbow and the shoulder, and that at the junction the separated portion felt to him as if the arm were sewn up with thread. He named his phantom "Oscar," associating this name with

that of his first employer who had died of coronary thrombosis several years previously. In our opinion this phenomenon was a manifestation of denial at a primitive level facilitated by organic brain disease. Draw-A-Person tests with the neurological patients showed that nonfunctioning extremities or sometimes other extremities were omitted or distorted. In some cases of facial paralysis accompanying hemiplegia the face was distorted unilaterally in the drawings. However, we do not yet understand the significance of many of these alterations.

The following histories are illustrative of the clinical data observed:

1. A 50-year-old man who had sustained a compound fracture of the left ankle 12 years previously was admitted to the hospital with a diagnosis of traumatic arthritis. Despite a partial return of function he had not worked for 12 years, was, in the last 2 years, subject to outbursts of temper. He harbored homicidal thoughts towards his wife and had spells of depression. On admission he said he would go crazy if his foot were not amputated. Reviewing his early history with the psychiatrist, the patient stated that he was his father's favorite and that his father had had an amputation of the left leg. The patient's mother had left the home for good when he was 5 and it developed that the patient had dealt with the anxiety of separation by withdrawal into a rich fantasy life. He described repeated dreams or daydreams of being chased, of falling from a telephone pole or from a mountain which had suddenly split in two; he would always escape danger by flying, plunging into the water, or going under the ground. He said those were rather crazy dreams but thought they revealed a magical power on his part in that he predicted the future of aeroplanes and submarines. He compared the fall from a ladder which had led to his ankle fracture with his dream experiences "It was just like the dreams except that I couldn't really fly."

Because of chronic infection in the ankle joint with sequestration of bone an amputation above the malleoli was performed. As the time for operation approached, the patient seemed happier, said that he looked towards a glowing future and that he had no emotional problems whatsoever. He did not expect to grieve for the loss of the foot. He mentioned that his favorite sister had died when he was 14 and that he had not grieved at all.

He made good surgical progress following the operation and remained in a state of quiet euphoria. "I am in a state of grace," he said. "The doctor is really like a supreme being, yes, passed down from God." The patient at first denied the existence of a phantom but later said that a phantom was present but made no difference to him. One restless night followed an angry episode with a nurse, the patient denied sleeplessness. He read at length in the newspapers accounts of the mutilation of 2 young girls by a 16-year-old boy.

He refused to do Draw-A-Person tests saying they would make him look ignorant. Perceptual tests showed strong denial.

This patient, in his childhood efforts to achieve his father's love, had accepted, as in his operation, a symbolic castration making himself impotent, passive and unaggressive. In his omnipotent fantasies, however, he also identified himself with the powerful father as later he did with the doctors who were supreme beings. In these ideas there was contained, moreover, a wish for blissful reunion with the mother.

This patient was highly cooperative to surgical treatment which suited his unconscious needs. His resort, however, to regressive modes of behavior makes his future reality adjustment uncertain.

Let us compare him with another patient who had emotional difficulties, but whose adaptation was reality-bound.

An affable 18-year-old soldier substained a traumatic amputation of the right leg when he was run over by a street car. He had acted promptly following the accident by tying his belt as a tourniquet around the amputated stump. Two operations were performed and painful phantom paresthesias were present for a short time giving place to an annoying feeling in the phantom "as if I were wearing wet socks." This patient wore his prosthesis the day he received it and said that he was able to use his phantom to help him judge which way to turn and how much weight to place on his prosthesis.

Considerable disturbance had characterized the patient's early family life. The father was an alcoholic who had abused the mother. Because of the father's bad treatment the mother had never recovered from a chronic ulceration of the left heel, and amputation had recently been recommended.

The patient said: "If I had as much suffering as my mother, I would be amputated." As a boy the patient had tried to work with his father in an effort to save the family farm which the father was selling piece by piece. The patient had lived in fear of being like his father, never drank, and applied himself vigorously to work. He excelled in boys' farm organizations. There had been some conflict over masturbation. Since he had left home, however, the patient had become more tolerant of his sexual impulses. His compulsive character defences had proven adequate in maintaining a successful military career. In his dreams this patient says he has always been active. During convalescence he dreamed of traveling on a pogo stick. The patient has formulated realistic plans for his own future on an independent basis. In his attitude towards his treatment he has been described by the surgeons as a "pearl."

Summary

Little reference has been made in this report to psychiatric treatment. It is believed

that the function of the psychiatrist lies chiefly in his availability for consultation and collaboration with surgical and nursing personnel; rarely is direct psychiatric therapy necessary. The major purpose of our study has been to indicate how the loss of an extremity or the loss of its function involves emotional problems beyond the loss itself. As a result increased disability both in amputation and in organic neurological disease may occur. Characteristically, the anxieties are concerned with separation, castration, and with aggressive impulses.

In the presence of a threat to bodily integrity pre-existing modes of dealing with anxiety are organized. And to the degree to which this process is tied to reality, adjustment or maladjustment to the loss occurs. Evidences of prolonged maladjustment have been observed when the defence or projection has been heavily invoked. In the study of defence mechanisms the correlation of perceptual tests with clinical data has proven valuable.

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PROFESSOR KINSEY: HIS FACTS AND HIS FANTASY

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THE FACTS

Among the 5,940 white, non-prison females who were willing to describe their sexual activities in minute detail for Professor Kinsey's second volume(1), the 75% who had gone to college included a severely disproportionate 19% with graduate education, while only 3% failed to attend high school. Females of Jewish faith contributed almost 30% of the interviews, while only 12% were contributed by Catholics. Only one third of those interviewed were devoutly religious even according to the moderate and purely quantitative requirements for inclusion in this group. Practically all came from urban, white-collar, or professional families. Twenty-two per cent of those over 30 were still single, and of those over 30 who had married, 40% were either widowed, separated, or divorced. No data are presented to indicate the number of children born to these females. Unlike the over-ambitious attempt in the volume on males(2), no "United States Corrections" or clinical tables are contained in the volume on females, and while the selectivity of the sample is admitted in the second chapter, the over-all presentation is such that readers are likely to receive the impression that the findings are applicable not only to this selective group of females but to women in general.

Comparison of findings for the 5,300 males who were interviewed as the factual basis for the first volume with these 5,900 females reveals striking differences in the pattern of male and female behavior. Some of the more pronounced differences indicate that while practically all males had been erotically aroused by the age of 15, only half of the females, though reaching adolescence sooner, had been so aroused. Only 20% of the females practiced masturbation within a given year, contrasted with 75% of single males whose rates, furthermore, were 3 to 6 times higher than those of single females. Similarly, male rates for nocturnal sex dreams involving orgasm were 4 times as high as those for females.

An approximate measure of the magnitude of differences in sexual behavior between males and females who were interviewed is the finding that by the time of marriage males averaged some 7 times as many orgasms as females. While the male average was somewhat less than twice as high for orgasms resulting from petting, it was almost 30 times as high for orgasms resulting from nocturnal dreams.

Augmenting such great differences in actual sexual behavior are pronounced differences in psychological responses. Males are likely to be aroused by a wide variety of psychological stimuli, females (and to generally lesser degree) by only a few. Physiologically also, female functioning involves a distinctively different and characteristically lower pattern. Production of the hormone group labelled 17-ketosteroids in males exceeds that of females from adolescence onward. Male levels rise above 15 milligrams per day during the twenties, declining to 10 milligrams at age 50. Peak production by females is also attained during the twenties, but rises to a level of only 10 milligrams, thereafter declining to 6 or 7 by age 35.

These and other facts from the Kinsey volume on females must be carefully evaluated in terms of the distorted sample from which they are derived and in view of statistical limitations[2]. Readers should be particularly wary as they examine data or read interpretations of data which are based upon the "accumulative incidence technique" as described in the analysis of the volume on males which appeared in this Journal earlier (3). As there described:

> The technique used for expansion of the data is, briefly, to treat each case as if it were an additional

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[2] Most of the strictly statistical limitations were exhaustively analyzed in *Statistical Problems of the Kinsey Report*, a 2-volume, mimeographed summary prepared by the Commission on Statistical Standards of the American Statistical Association.

case falling within each previous age group or previous experienced category. Thus, a man who was 45 at the time of the interview would provide a case for each age group previous to that, and if he was married at the time of interview would constitute a case for the single category tabulations in the years before he was married. The authors attempt to justify this technique upon the basis of evidence as to the persistency of sexual patterns from generation to generation, assuming that a man who was 15 years of age 30 years ago can be counted in the calculations as though he were 15, 16, 17 . . . 45 years of age today. This "accumulative incidence technique" is the basis for most of the generalizations regarding sexual behavior of the entire male population of the United States. It can be applied with least danger of error to determine if given individuals have engaged in specific acts once during their lifetime. However, since most people engage in multitudinous types of behavior, many of which are mutually contradictory, information about any one type is of little value in describing actual social relationships or patterns of behavior. Most people were infantile when they were infants, childish when they were children, and adolescent when they were in their 'teens, and such a technique would demonstrate these facts with reasonable accuracy. It could be used to demonstrate that 100% of the population is "selfish" (has engaged in selfish behavior), but it would also show that 100% of the population is "unselfish." . . . Thus the technique has serious limitations if it is used as a basis for attempts to describe human behavior rather than to enumerate specific acts.

As indicated in this excerpt, use of the accumulative incidence technique in the volume on males was presumably justified by the authors through their assertions that the stability of sexual behavior warranted its employment. In the volume on females the marked changes that have occurred in sexual behavior are acknowledged by the authors, but the technique is still used.

Despite these and other limitations, the collection and statistical processing of over 11,000 records represents a prodigious fact-finding and reporting task, a task to which years of painstaking effort have been devoted, a task whose product, for good or ill, exerts an influence upon society which must be seriously weighed.

As a disappointing documentation to dampen the fantasies of younger males, as confirmation of the grumpy suspicions of veteran husbands, the data that describe the wide behavioral and psychological differences between the sexual responses of the sexes—differences even further augmented by the irregular and discontinuous nature of female responses—constitute the most striking, though hardly new or surprising, facts of the second Kinsey report.

The Fantasy

In lectures, in correspondence, and in interviews associated with the first volume, Professor Kinsey repeatedly and emphatically declaimed that his only interest was in "the fact," staunchly disavowing reformistic pretensions. His preface reaffirmed his avowed aim ". . . to accumulate an objectively determined body of fact which strictly avoids social and moral interpretations of the fact . . . indeed scientists have no special capacities for making such evaluations" (p. 5). To be sure, several of his interpreters and promoters translated his findings into social and moral evaluations, one gleefully proclaiming ". . . next, we shall teach techniques . . .," but the first volume was generally received and perhaps is still thought of primarily as an impressive collection of statistical facts. Though a number of those who analyzed the book pointed out that much of it, despite the explicit denial, actually was devoted to evaluative interpretation, yet the façade of a dispassionate presentation of objective fact persisted.

Stepping boldly forth from behind the protective façade of simple fact-finder Professor Kinsey now admits, or possibly belatedly recognizes, that his aim is not only to describe what people do sexually but also ". . . what factors may account for their patterns of sexual behavior, how their sexual experiences have affected their lives, and what social significance there may be in each type of behavior" (p. 3). Hopefully the jacket proclaims that the impact of the book ". . . will be felt *immediately* in such problems as sexual adjustment in marriage, sexual education of children, and social control of sexual offenders."

Simple fact-finding is no longer the goal. Now the search has admittedly branched out into psychological areas of causation, into analysis and interpretation of attitudes, and into moral and sociological areas. The façade removed, what pattern of evaluation now reveals itself? Down what paths does the interpretation lead? What proposals does the book contain that their "immediate" impact

should be thrust upon marriage and upon child rearing? Persistent hammering at Judeo-Christian legal and moral codes in the first volume fashioned only a rough outline, but these continued blows are combined in the second volume to reveal a form of representation which creates an image, an image of a new society, a fantasy. With little loss to the essence of the interpretation we can ignore the minor and halting excursions into the area of attitudes, and after only a brief glance at the interpretation of causal factors, focus and ruminate upon the matter of social interpretation and evaluation.

Conditioning is, in effect, the causal factor, the "cause" of restraints imposed upon sexual behavior, the "cause" of individual differences in sexual behavior and, most importantly, the "cause" for the extreme differences between the behavior and psychological reactions to sex as male reactions and behavior are contrasted with female. Throughout the book the concept of conditioning appears as the causal factor. Within 8 pages in the chapter on "Psychological Factors in Sexual Response" the concept appears some 25 times. A most extreme illustration of this supposed conditioning is:

> The male who reacts sexually and comes to erection upon seeing a streetcar, may merely reflect some early experience in which a streetcar was associated with a desirable sexual partner; and his behavior may be no more difficult to explain than the behavior of the male who reacts at the sight of his wife undressing for bed. There may be more social advantage in the one type of behavior than the other (p. 646).

Even were Pavlov the conductor and Watson the motorman, this streetcar called Desire is way off the conditioning track!

While the notion of conditioning has some value as a clue to a partial explanation of some aspects of behavior, few psychologists would now accept its employment in the broad all-powerful sense as in this Kinsey volume. Some 30 years ago, upon publication of John Broadus Watson's *Behavorism*, the ordinarily restrained *New York Times* hailed the technique of conditioning advocated by Watson as presaging "The dawn of a new era," but in the annals of psychological investigation the notion that people could be easily and permanently conditioned into any desired mold soon faded into the limbo of discarded theory.

The path, the highroad to the brighter future emerging in Professor Kinsey's fantasies, was long since posted with signs marking it as a dead end. Suppose, however, we ignore this impassible route and assume that some other course of re-education will lead to the desired goal.

Once the Judeo-Christian moral and legal codes relating to sexual behavior have been removed as restraining influences we shall assume that people can be trained so as to attain ideal sexual adjustment and, thereby, increased happiness. In general terms this fantasy is a society in which any form of sexual behavior indulged in by any person, at any time, is to be viewed as normal. The sole criterion is hedonistic—is the pleasure derived greater than the pain? Neither homosexuality nor premarital coitus would be legally punished or socially condemned.

In this brave new society all forms of sexual behavior will be normal, and it is difficult to avoid the impression that the forms which are now condemned will be somewhat "more normal" than the socially condoned.

Though, for illustration, some 80% of the children who had been sexually molested by adults had been emotionally upset, in most instances the upset was only comparable to that experienced upon seeing a spider (provided they had been adversely conditioned to spiders). Cultural conditioning conveyed by the warnings of parents and teachers actually (so we are told on p. 121) causes the upset. The fuss which parents make over such molestations do more damage to children than the act itself, while without such conditioning it might have ". . . contributed favorably to their later socio-sexual development." As for our attitude toward homosexuality, we shall be reconditioned to appreciate that the choice of a partner of the same or of the opposite sex in sexual relations becomes significant ". . . only because society demands that there be a particular choice in this matter, and does not so often dictate one's choice of food or of clothing"(2, p. 661). Our new enlightenment will include an appreciation that the old codes prohibited sexual activity by women prior to marriage ". . . primarily because they threatened the male's property rights in the female whom he was taking as a wife . . ." (p. 322). Even the most romantic will now be aware that

those olden desires that females be virgin at the time of marriage were ". . . comparable to the demand that cattle or other goods that he bought should be perfect . . ." (p. 322).

Particularly pronounced in the presentation of the second volume is the beneficial effect of premarital sexual experience for females. Such experience, it is emphasized ". . . provides an opportunity for the females to learn to adjust emotionally to various types of males (p. 266). In addition, we are told, it may well contribute to the effectiveness of one's other, nonsexual, social relationships (p. 327), and that many females will thus learn how to respond to socio-sexual contacts (p. 115). In addition, such premarital sexual experience should contribute to development of emotional capacities (p. 328) in a more effective way than if they are learned after marriage (p. 328). Avoidance of premarital sexual experience may lead to inhibitions which damage the capacity to respond so much that they may persist after years of marriage ". . . if, indeed, they are ever dissipated" (p. 330).

From the mists of fantasy there now emerges the brave new sexual society of Professor Kinsey. Many would obtain more sexual pleasure in this new society than they now do, and other benefits would accrue to some types of people. Single males would, as a group, probably derive the greatest benefit, and married males would appreciably increase their extramarital affairs. Persuasive evidence from the volume on females indicates that with premarital sexual relations condoned, if not encouraged, a smaller percentage of wives would be frigid. Homosexuals would no longer fear arrest and, with removal of the social stigma attaching to their practices, they would be freed of guilt feelings. Adult molesters of children could sleep the sleep of the just, proud that their activities may have contributed favorably to the later socio-sexual development of the child.

The Fantasy and the Facts

Many questions arise as one dwells on the fantasy of the brave new sexual society. Why get married? Expanding somewhat beyond the area encompassed by Kinsey, but proceeding only moderately further along the paths of realism and rationality (actually a pseudo-rationality and a very unrealistic realism) we soon arrive at the point where this question must be given serious consideration. Females have the incentives of economic assistance and social status to be derived from the arrangement, but—accepting the new realism and the facts—what advantages do males derive? Why should males assume the financial obligations, accept the personal restrictions, yield to the social demands which we have been told some wives impose upon their husbands?

As of yore, such burdens were assumed because of romance, a sense of social obligation, the desire to establish a family, or for similar reasons, but now such notions are obsolete. Now relations between the sexes are established upon a rational, a hedonistic basis, in which the pleasure derived is to be carefully weighed against the pain or annoyance involved. Why not presume that the incentive for males to marry will be appreciably diminished as sexual opportunities outside of marriage increase, especially in view of the widespread and quite possibly innate male desire for variety in sexual experience? A further decrease in the new "realistic" incentive to marry should take place as males become aware of the facts which reveal that no matter how much experimentation the female has indulged in before marriage the odds are that she will soon refrain from variety after marriage and settle down to a routine in which both performance and frequency, though somewhat influenced by the desires of the husband, will be essentially determined by the wife.

What to do with the illegitimate children? Some 18% of the females who engaged in premarital sexual activity became pregnant. Some of these later married the presumed fathers, but others did not. Increased training in the use of contraceptives might contribute to some reduction in this figure, but greater promiscuity might serve to increase the extent of the problem. Many of these postpregnancy marriages, moreover, may well have been entered into by couples with a sense of social responsibility and a feeling of moral obligation which would be looked upon as archaic in the new order.

Should college administrators (as was suggested by a college newspaper after publica-

tion of the volume on males) provide facilities for students to indulge in their sexual desires so that the "conditioning" associated with such premarital experiences would be most favorable?

Failure to assess properly the balance of physical pleasure against psychological restraints and financial pain will still lead some into marriage, and stubborn and unenlightened adherence to archaic codes will forge permanent marital bonds for the eccentric, the deviants, the abnormal.

Since practically all of the mammals that constitute the basis for "normality" in the Kinseyian view form only temporary relations with their mates, why should any large percentage of humans be so exceptionally "abnormal" as to form permanent unions?

Many similar questions arise as to whether morality is to be determined on a statistical basis or whether it should be considered as an ideal standard designed to serve as a goal even though there is full realization that violations exist. Statistically disease is common but we still strive for good health. Statistically mental disorder is prevalent, but we still uphold the ideal of sanity. Criminality is quite common, and we could further demonstrate that the majority of specific crimes result in financial gain rather than in punishment, yet few parents would raise their children to accept, much less train them to profit from, this statistical reality. Such questions, while pertinent and important, require much exposition, so we shall address ourselves to a specific aspect of the fantasy, that dealing with the relationship between female premarital sexual relations and their marital adjustment.

While the facts—always remembering the selectivity of the contributing group, and the misleading nature of the accumulative incidence technique which make the facts of limited applicability—do indicate that an appreciably smaller percentage of "frigid" wives were found among those who engaged in premarital sexual activity, only 74% of those with the most promiscuous experience attained orgasm in more than 60% of their marital relations during the first year. By the fifth year of marriage, those who had refrained from premarital coitus had a degree of "sexual adjustment" which compared favorably with those who indulged in such activity. Females who engaged in masturbation have a generally higher percentage of "sexual adjustment" within marriage than those who engage in premarital coitus.

Though, as in the volume on males, Professor Kinsey in several places denies any appreciable increase in socially condemned sexual behavior, referring to "few changes," "not substantiated," and "newspaper generated hysteria," his findings again indicate that we are taking giant strides as we race headlong toward the brave new sexual society. Both within marriage and prior to marriage virtually all of the condemned forms of sexual activity, from "deep" kissing to adultery, show large increases. These increases in sexual liberty (or license), though indulged by all younger groups, appear to be most pronounced among the higher educated. Such striking increases, such a gloriously grand expansion in the practices which supposedly lead to socio-sexual adjustment, should now show their effect. Particularly effective should be the highly recommended increases in premarital sexual relations. Having increased, not slightly but now being 2 or 3 times as common as in earlier years, the greater liberty should now reflect its salutary influence. Apparently, however, the promised results are chimerical—they fail to materialize from the fantasy.

While the facts are multitudinous and the form of presentation combines with the multiplicity of fact to make this aspect of our analysis debatable, the indications seem to be that differences in sexual drive rather than particular premarital experiences more nearly explain the lower incidence of "frigidity" which appears when some females are compared with others. Those females with greater drive find outlet of one sort or another, and no particular "conditioning" need be adduced to explain that few of them are "frigid." If "conditioning" is involved, apparently masturbation is most effective—and no pregnancies have yet been reported from this practice. On the basis of his own figures, Professor Kinsey's repeated implications that premarital coitus enables females to learn to adjust physically and emotional within marriage is not substantiated. Bluntly, we have much more immorality with but minor change in marital adjustments.

This interpretation, stressing innate individual differences which are only moderately altered by particular experience, is supported also by the finding that those with college or graduate education, though most "advanced" in the extent and variety of both premarital and marital sexual experimentation, have not the highest, but the lowest rate of marital sexual activity with their spouses. Even more striking is this finding, so contrary to the fantasy, when it is realized that: (1) these college-educated females have had the supposed benefits of sex education; (2) since lower marriage rates prevail among college females, those who do marry should be more favorably disposed toward sex than a less selective group of wives; (3) they are adept at verbalization; knowing that females are supposed to be sexually responsive, they may expand upon the degree of their marital performance. Reviewing the poor record in view of such considerations may give one pause to wonder—are they being emancipated sexually, or are they being emancipated from sex?

Repeatedly stressed throughout the volume is the repressive and negative conditioning effect of religious traditions and devout religious adherence. Factually those devoutly religious are much more restrained in their premarital behavior. Yet within marriage this supposedly adversely conditioned group shows no significant difference, either in frequency or response, when compared with religiously inactive females. They do, however, differ appreciably in limiting their sexual activities to relations with their husbands.

In short, it appears that if a female has normal sexual drives, little or nothing can be learned through premarital coitus that cannot equally well be learned in the first years of marriage. Unless there be some quaint virtue in vice, premarital sexual experimentation by females is no great asset to marital adjustment.

In the vernacular of advertising and entertainment the fantasy must be purchased as a "package deal." Supposed beneficial effects of premarital experience are questionable and, at best, moderate. But even if they do exist, they cannot be bought separately. Together with questionable advantages we must accept several conditions which some people, due to their archaic adherence to Judeo-Christian moral codes, may resent. Twice as frequently as those who abstain, the females who engage in premarital coitus also engage in adultery. Females who have benefited by a college education engage in adultery and other nonmarital sexual acts more frequently than others. Devoutly religious females, deprived of the supposedly beneficial effects of premarital experimentation, but with a marital sexual performance comparable to that of their emancipated "inactive" sisters, engage in adultery in much smaller proportion.

Studies of trends in sexual behavior, including Professor Kinsey's, amply attest to the delusive nature of the notion that our sexual behavior is severely restricted by mid-Victorian, Judeo-Christian or other rigid codes. Increases of great magnitude have occurred in practically all of the socially condemned forms of sexual behavior. In freedom and variety of sexual liberty (or license) we have been for years engaged in practices which should have "conditioned" females to be more responsive, to be less markedly different from men in their marital sexual relations, yet the major differences show no appreciable change. Most remarkably of all—as we reap the rewards of increased female adultery, increased premarital activity, increases in all forms of experimentation—we find not an increase, but a persistent decrease, decade by decade, in the frequency with which the increasingly emancipated wives engage in sexual relations with their more enlightened, more considerate, and increasingly deluded husbands!

It is conceivable that the trend, which thus far lends precious little support for the fantasy of a brave new sexual society in which females respond in the same manner and to the same degree as males, may be reversed upon further homeopathic administering of the "conditioning" remedy. Thus far the treatment has resulted in at best minor relief while the side-effects erupt in disturbing fashion. An open mind demands admission of the possibility that the fantasy can become reality. In appreciable measure it is becoming reality. Who, but a short time ago, would have dreamed that cigarette-smoking, bar-hopping, pants-wearing females would operate streetcars and

taxis, weld steel, and serve in the armed forces? Perhaps little girls can be "conditioned" toward erotic responsiveness and sexual dalliance instead of homemaking, child bearing and rearing, premarital chastity, and marital fidelity. Perhaps the minor gains of somewhat decreased marital frigidity compensate for the increases in premarital immorality, in adultery, and in the decline in marital sexual performance. On the other hand the admittedly somewhat unrealistic ideal which exalts females as being endowed with qualities particularly qualifying them for a role as guardians of the sexual mores may have some value.

Under one alternative females would rely upon frantic, albeit sporadic and usually futile, attempts to become equal sexual partners with males. Under the other they might attain romance before marriage and respect and devotion within marriage through chastity, through the very differences which endow them, in addition to capabilities for greater sexual restraint, with charm, with grace, with other sometimes irritating but frequently endearing qualities which make Mona Lisa's smile a mystery still. Old fashioned or not, there may be some marital and socially integrative value in viewing females as women—perhaps even as ladies.

The choice is fairly clear, but the decision —whether to accept the lessons of civilized history, to adjust male and female relations within a framework of the factual differences, or to continue our daring voyage through the mists of fantasy to Professor Kinsey's brave new sexual society—cannot long be postponed.

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HISTORICAL NOTES

I REMEMBER NISSL

"Hie und da mal ja; bin aber doch kein Schleifapparat."[1] Nissl was referring good naturedly to one of the graduate students in his laboratory who had difficulty in keeping a good cutting edge on his microtome knife and had repeatedly asked the chief to sharpen it for him.

In Nissl's laboratory at the Heidelberg Clinic—a cubicle hardly bigger than the old-style hall bedroom—there was space for only 3 workbenches at the windows in addition to the window space at the end of the room reserved for the chief. The 3 students who

Nissl, extreme left; Kraepelin, extreme right; Alzheimer, directly behind Kraepelin.

worked daily in the laboratory at the time of which I speak constituted an international group. There were Campbell from Edinburgh, Devaux from Paris, and Farrar from Baltimore. An extra table had been arranged for a fourth student who was from Poland. He was the one with the knife trouble and his visits were irregular.[2]

Nissl lived in the hospital. He occupied spacious quarters above the laboratory—a combined bedroom and study. Here he burned the midnight oil, and the morning oil too, writing his exceedingly careful and detailed histological and histopathological studies of the cerebral cortex.[3] After prolonged overwork with insufficient rest Nissl collapsed one day and for some time was confined to bed. Professor Kraepelin, chief of the clinic, was concerned over the irregular hours and the health of the indefatigable Nissl—he was unmarried. Meeting the chief in the corridor as he was coming from Nissl's room one evening I inquired how he found the patient. "Making progress" was his laconic reply, and then turning to me he abruptly asked, "Sind Sie verheiratet, Herr Kollege?" "Noch nicht, Herr Professor." "Well," rejoined Kraepelin, "when you return home, marry as soon as you can and get it over with; *dann können Sie ruhig weiter arbeiten.*"

Happily Nissl was up and about again in a short time and as tireless as ever. But let us return for a moment to his room. He was a forthwright person, steeped in his science, who confined his interests mainly to matters of this world. With ecclesiastical formalities he had little patience. He had removed a crucifix that originally hung on the wall above the bed and in its place had fixed a framed motto of his own devising. Borrowing a word from Voltaire, he reinforced it with a vehement German phrase of

[1] "Once in a while I don't mind; all the same I'm not a grindstone."

[2] Workers in Nissl's laboratory were expected to become proficient in technique. They purchased their own microtome knives and were responsible for keeping them in prime condition. They received fresh autopsy material, put it through the various processes, cut and strained their own sections for study.

[3] The first volume of his *Histologische und Histopathologische Arbeiten über die Grosshirnrinde mit besonderer Berücksichtigung der Pathologischen Anatomie der Geisteskrankheiten* was published in 1904. This remarkable 500-page volume contains but 2 articles—one by Alzheimer and one by Nissl, demonstrating both the fine and gross anatomy of the cortex in dementia paralytica. They are illustrated by exquisite drawings in color of oil-immersion pictures of cortical elements and photomicrographs to show gross changes in cortical structure. Together they present probably the best study of its kind that has ever been made of a disease that is happily less frequent now than when this work was done.

more or less similar meaning. The result was like this:

EĆRASEZ
ROTTET SIE AUS

Nissl had come from a little town to the south. The parish priest there, he said, had been concerned about the welfare of his soul. Sometimes the priest would have occasion to visit Heidelberg and, still concerned, would drop in to see Nissl. The Herr Professor would receive him with good humor but without absorbing much of his admonition. Recalling the incident later in conversation, he would remain reflectively silent for a moment; then a chuckling ejeculation, *"dummer Kerl."* But there was no malice in the expression, almost no disparagement, just a matter-of-fact remark, much as when the findings of another writer on the cortex that he considered the result of faulty observation would bring forth the benevolent growl, "Ach, der existiert nicht für uns."

The story of Nissl's staining technique—the "Nissl stain"—and the association of his name with the deeply stained particles scattered through the cytoplasm of the nerve cells—the "Nissl bodies"—is fairly well known. The perfecting of the methylene blue staining method had occupied Nissl almost 10 years. Here, as in so many other fields, one of the important steps was the result of pure accident. Methylene blue pictures of cellular structure in the cortex were vastly superior to those obtained by any other method but they were disappointingly impermanent; at this juncture a colleague in bacteriology had told Nissl of his own lack of success in achieving a durable stain of anthrax spores. One day, re-examining some slides that had been thrown accidently into the laboratory sink where they had come into contact with soapy water, he found the staining result greatly improved. Acting upon this hint, Nissl added Venetian soap (made with pure olive oil) to his stain and was gratified by similar results—much more durable preparations. In 1890 he was able to make public his finally perfected staining technique. He had laid the foundations of histopathology,[4] and together with his long-time friend and associate, Alzheimer, had created a pathology of mental disease.

Nissl had come to Heidelberg at Kraepelin's call in 1896 to set up and direct the pathological laboratory. When Kraepelin left to take over the direction of the newly founded *Deutsche Forschungsanstalt für Psychiatrie* at Munich, Nissl succeeded as professor of psychiatry at Heidelberg. Kraepelin drew heavily upon Nissl for the pathological portions in his encyclopedic *Psychiatrie*.

The personalities of these 2 men offered many contrasts. Both were friendly, hospitable, generous with their time, devoted to the interests of their students upon whom they exercised a tremendously stimulating influence. But Kraepelin was more reserved, perhaps a little aloof at times, not cold but self-contained, self-controlled. He commanded respect as the greatest teacher of psychiatry of his time; he was never what might be called easy or familiar. Nissl displayed rather more those companionable qualities. His nature was flexible and out-going and his capacity for humor just a little wider. One felt more at ease with him; the distance between was shorter, soon hardly any distance at all. Kraepelin was a total abstainer; Nissl enjoyed his beer.

He was of stocky build, deep-chested, round-headed, with short thick neck, all the characteristics of the Alpine stock. A purple birthmark over one cheek was later covered by a beard.

Nissl's lectures were something special. He would come into the lecture room wearing an old, short laboratory coat of nondescript hue, the real color of which would be more obvious after a trip to the laundry.

"Meine Herren!". . . At first the slow, deliberate speech was not very stirring; but soon the speaker had warmed to his subject, his face would light up, the lecture room seemed forgotten; unmindful of his hearers he was traveling through a country that he knew and loved. That country was *die nervöse Grau*. Its indwellers were the nerve cells

[4] Nissl published his description of the structures that came to be known as the "Nissl bodies" in *Neurolog. Centralblatt* in 1894; the title of his paper: *Ueber die sogenannten Granula der Nervenzellen.*

with their lines of communication, their several levels and districts and stations, the glial elements and their relationships, the irrigation channels that served the whole. Gazing over the heads of the rapt listeners—for these were all new things in those days—Nissl might be communing with himself, or as his glance rested in a remote corner of the ceiling was he addressing a cherub that sat there and smiled back at him? Be that as it may, for those who sat there the intricacies of the microscopic structure of the cerebral cortex were being opened as never before and the impressions of that lecture-hall have lived vividly in memory these many years. It was a remarkable experience.

Nissl's vocabulary had peculiarities of its own too. He had 2 pet words that meant anything he wished them to mean. They were often put to use—to the amusement of those who understood, to the amazement of those who did not. These words were 2 feminine nouns—*die Röhre* and *die Motzung*. The occasion might be a small staff group enjoying a late evening snack at a *Bierkellar*. Pointing to the salt, Nissl would say to his neighbor, *"die Röhre, bitte"*; which having received, *"dann, die Motzung,"* and the pepper would be passed to him. Or cigarettes and matches might be respectively *"die Röhre und die Motzung."*[5] Or again in the laboratory, explaining some subject, he would conclude, *"und das ist die Köhre,"* meaning that's how it is. If a stained section did not show up satisfactorily or any technical process did not turn out as expected it was not the operator who was at fault. *"Tücke der Object!"* Nissl would mutter.

Of all the colorful associations with Nissl during a 2-year period the most dramatic was a trip to Paris together. However alluring the subject of this visit, I can here mention only one or two striking features.

A visit to Ste. Anne's Hospital where Professor Magnan presided was one of our main objectives. Devaux who had earlier returned to Paris joined us on this occasion. Magnan felt highly honored by the visit of the great German professor and dropped everything to give us a field-day in his clinic. In a way also Nissl's visit was a challenge. It was necessary to show that there was such a thing as French psychiatry. Germany being the traditional enemy, the rising tide of Kraepelin's prestige could not but awake some adverse sentiments, and the Kraepelinian synthesis, dementia praecox, had not found much favor in France at this time, was indeed regarded with a sharply critical eye. And Nissl was a German and a Kraepelinian.

The high point of the day was a brilliant, detailed demonstration of a very special case by Magnan himself. The master of Ste. Anne's had given much study to the slowly advancing paranoidal conditions which he had erected into a disease *sui generis* and to which he gave the name *délire chronique à évolution systematique*. He had devoted a book to this disease. The patient he demonstrated that afternoon was an indubious example.

Nissl listened with closest attention, now and then nodding appreciatively as the Frenchman made some fine psychological analysis of symptoms. The presentation complete, Magnan hopefully awaited Nissl's comment. It was brief and to the point: *"Ein ganz typischer Fall von Dementia Praecox."*

German percipience and French sensibility are two different things. Nissl was seemingly quite unaware that his laconic and definitive statement had carried an affront. Magnan fell silent. The visit did not last much longer, and we took our departure. French courtesy wonderfully tempered the chill in the atmosphere. The aftermath we learned next day. Devaux told us that when the door closed behind us Magnan had gone

[5] A lesson might derive from these 2 Nisslisms if we cared to learn it. The words had no contextual meaning and yet each time as used their meaning was specific and unequivocal. They would mean the same to any auditor. And this reminds us that many words that we hear bandied about in such common fashion, often in such questionable company, and purporting to carry vital messages, really have no specific meaning whatever, and may convey the most varied implications. Such a word can actually signify direct opposites, according to the intelligence, the prejudice, the opportunism, or the malice of the speaker. What does "democracy" mean, or "public welfare," or "religion," or "truth," or "freedom," or "equality," or "peace," or "honor," or even "wisdomo"? Nissl's pet words were harmless, also amusing. Many another word, whatever honest sense it may have borne originally, has been so debased in contemporary misuse as to be downright mischievous, expressing fact or falsehood or confusion interchangeably.

to his office, bowed his head over his desk, and wept. No one could have shown more astonishment than Nissl on hearing this. "What did I do . . . ?"

A rather different Paris excursion with Nissl was the ascent to the summit of the Eiffel Tower. It was a fairly clear day and the horizon was remote, and yet that horizon did not hem in the great city. Let the eye reach as far as it would on every side, there still was Paris stretching beyond. It was a prodigious spectacle and at first we found no words. Then Nissl spoke. He recalled that *der liebe Herrgott* had counted the hairs on all the heads that might be within our range of vision—a stupendous mathematical feat even for an adding machine. Then, pondering the matter, he concluded that for registering such a mass of details, *"dann müsste der liebe Herrgott eine Rinde haben so dick wie von hier nach Heidelberg."* [6]

There was something Peter Panish about the Herr Professor off duty, and I hope it may be said without irreverence that Nissl in Paris was not altogether unlike a youngster at a performance by Barnum and Bailey.

[6] ". . . the dear God would have to have a cortex as thick as from here to Heidelberg."

At an evening of the Medical Historical Club of Toronto recently, with Nissl as topic, after some of his Parisian experiences had been related, one of the members commented that only daylight doings had been mentioned. Were there no nocturnal ones? One could only reply with the words of Nissl himself at leave-taking as he was returning to Heidelberg. After two years of such close and rewarding association this was to be the last time that I would see him and there was not missing a note of sadness in saying goodbye. But the leave-taking must not be somber, and I chanced the remark that all the friends at home would eagerly await from him a full account both of the Paris days and the Paris nights. How about the Paris nights? A vigorous head-shaking and a grin like Fernandel's when asked—Does the average Frenchman still pinch pretty girls in a crowd?—and Nissl pronounced: *"Ach, Herr Kollege, darüber fällt ein Schleier."*

The final *Schleier* fell over Nissl the same year that Osler died. The year was 1919.

So these are some of the cherished memories of a great scientist, a great teacher, a great friend.

C.B.F.

"A MOI LA MÉDICINE MAIS SANS LE MÉDICIN"

When Molière was ill the King, Louis XIV, saw to it that he had the services of the court physician Mauvilain. The King later inquiring how the patient fared at the doctor's hands, Molière replied, "Sire, we talk together, he prescribes remedies for me; I do not take them; and I recover.

PRESIDENT'S PAGE

As I sit and write, the New Year is rapidly approaching. My term as President is more than half over, and I have scarcely heard from a District Branch. To be sure, at the annual meeting the Assembly met and forwarded some suggestions to Council, and Dr. Abramson and several other representatives of District Branches sat with Council in October and were helpful in some important deliberations. But communication is slow. It is desirable to develop facilities for speeding up communication.

With the new year upon us, it is appropriate to think of our directions, achievements and needs. Alice asked—and we are all in Wonderland at times—Now, where shall I go from here? The reply came: Where do you want to get? There is the rub. People want to get different places in psychiatry. However, all agree that improved treatment for the mentally and emotionally ill in our public hospitals is a prime objective. The APA has held firmly to this goal—only last week came the news of the disruption of a program in one of our great states. Your society through its officers was immediately alive and responsive to the situation and moved in as tactfully and constructively as possible after much painstaking deliberation. This emphasizes a new suggestion your President has made, that we need a Flexner Report on Mental Health Programs in States—an analysis in an impartial study, probably by sociologists, of factors making for constructive function and factors making for breakdown.

As to achievements of the past years—not just of this administration—we can think of the great contribution the Hospital Institutes are making. The thinking of these Institutes permeates psychiatry throughout the continent. This is a tribute to the vision and zeal of our Medical Director, Dan Blain. Then the Central Inspection Board continues to function more extensively and more effectively. The Washington Conference on Mental Health in collaboration with the Mental Health Committee of the A.M.A. showed worthwhile explorations. The architectural grants will show results for years to come. Heaven knows, we need more buildings. But they will be functional, aesthetically appealing, breathing warmth, friendliness and humanitarian impulses rather than presenting impressions of revolting, massive masonry, stressing force, restraint and regimentation. The Long Term Policy Commission has been hard at work looking toward change, looking at change, looking at needs, and guiding change after unbelievably long, time-taking deliberations—deliberations by men of very different basic ideological and sociological points of view. This should be emphasized, because so often an occasional member of the Association will imply that policy is arrived at almost by impulse or clique connivance. A perusal of the names of the men on the Long Term Policy Commission, the Council, the Assembly, the Ad Hoc Committee to Communicate with the Membership re National Headquarters (Potter, Barton, Cameron, Flicker, Noyes, Terhune, and Abramson and Bloomberg, ex-officio), and explore membership opinion re recommendations of the Committee on the Permanent Home (made up of nine past presidents of very different complexion theoretically and geographically); the Ad Hoc Committee to Investigate Office Facilities in Washington, D. C. (Overholser, Davidson, Laughlin, Lebensohn, Morse)—a perusal of these names and others active in the Association seems to guarantee solid progress in the Association's life.

Alertness to the needs of the members is shown by the leadership of Austin Davies in providing health and accident insurance for the membership and looking forward to improved professional liability insurance. And, by the way, can't we get in the habit of referring to this insurance as "professional liability" instead of "malpractice insurance"?

The Committee meetings in October were successful but next year, with increased appropriation for full committee attendance, great things may be expected of our Committees.

Our Medical Director has just completed

a trip round the world. Personal contacts vitalize relationships and influence, which no amount of correspondence can achieve. The trips of American consultants are not just to interpret American psychiatry beyond our borders, but also to bring new light into our own dark places. Anyone who has heard Bartemeier, Bob Matthews, Hargreaves and John Rees talk recently will appreciate the importance of firsthand contact with foreign psychiatry. We await Blain's reports with great interest.

As to future needs, let us recognize that two great activities of the APA at present, the Hospital Institutes and the Central Inspection Board, are striving for improvement of psychiatric services to the public. They represent extensions of one of the great purposes for which our Association was founded. More financial support is needed for C.I.B. The Washington Conference showed the need for increased public information and interpretation of psychiatry. In my trips around the country, people are avid for information and interpretation—whether the groups are medical, lay, or even psychiatric. In many ways psychiatric practice is misunderstood, some attitudes are open to misconceptions, some are unwholesome. Our public relations need to be improved. Ways and means of stimulating more activity of local, peripheral grass-roots psychiatry are eminently desirable. This is a matter the District Branches can work on. Your President has made repeated appeals for suggestions. He has received relatively few. The idea of having two top elected officers with more simultaneous activity was presented under the suggestion of "Two Presidents." There is need for more personal contact between the central elected personnel and the constituent bodies. The District Branches and Assembly can profitably work on this.

Headquarters, offices or building, seem desirable from many points of view. Responses were encouraging to the President's letter, the majority supporting Washington as a location. (As of December 23, 4448 approval, 445 disapproval and 13 undecided have been received.)

The Association is active in an unbelievable number of undertakings. It has grown, survived crises, and there is every reason to believe it will continue to grow solidly in the coming years under the broad and wise guidance of the many who so generously contribute of themselves to their professional Association.

KENNETH E. APPEL, M. D.

COMMENT

THE JOURNAL OF MENTAL SCIENCE CENTENARY

The October 1953 issue of *The Journal of Mental Science,* the official organ of the Royal Medico-Psychological Association, is designated as the Centenary Number.

Dr. Alexander Walk, Co-Editor of the Journal and Librarian to the Royal Medico-Psychological Association, opens with a statement about the beginnings of the Journal. Unlike the situation in America where the national association and its official publication came into being in the same year, the British association had been in existence twelve years before the first number of its official organ appeared, November 15, 1853. It is interesting to note that the name adopted by the British group was about as space-filling as that of the American counterpart. It was the "Association of Medical Officers of Hospitals for the Insane." The new publication was first called *The Asylum Journal,* later *The Asylum Journal of Mental Science,* and eventually *The Journal of Mental Science.*

Dr. J. C. (later Sir John) Bucknill was the first editor and he was solely responsible for it for ten years, during which he contributed some sixty papers to its pages.

The birth of the Journal did not occur without pangs. Dr. Forbes Winslow had founded and published since 1848 his *Journal of Psychological Medicine* and he felt aggrieved by what he considered unwarranted competition. He so expressed himself in his characteristic vigorous fashion: "Having embarked a capital of some thousand pounds in establishing this journal . . . it cannot be otherwise than mortifying that those who have never lifted their little finger to assist us, should, in 1853, attempt to injure the property of this journal by starting a rival publication."

The minutes of the Association's annual meeting in 1854 contain this pleasing entry: "Dr. Forbes Winslow spoke of the *Asylum Journal* in the most handsome manner . . . he begged to move that 'The best thanks of this Association be given to Dr. Bucknill for the manner in which he conducted the *Asylum Journal.*'" The foundations were well and truly laid and now in a spirit of amity the (later to become) *Journal of Mental Science* proceeded on its distinquished career.

The second article in this Centenary Number is by Dr. G. W. T. H. Fleming who for many years has been Editor-in-Chief. It is his Presidential Address delivered at the one hundred and twelfth annual meeting of the Royal Medico-Psychological Association. Dr. Fleming's subject was "The Insane Root," and his paper is an instructive historical review, with numerous illustrations, of the beliefs that men have held concerning the mandrake and its powers. Quotations from ancient herbals constitute an especially valuable feature of this contribution. The president suggested that his essay might be called "a side-line of psychiatry."

During its long career the *Journal of Mental Science* has had as its editors some of Britain's most eminent psychiatrists—among the early ones such men as Maudsley, Lockhart Robertson, Clouston, Hack Tuke, Savage, Rayner, and others—and in the hands of its present Editor-in-Chief, it maintains its pre-eminence.

The *American Journal of Psychiatry* salutes its venerable and highly respected contemporary publication, the *Journal of Mental Science,* now prosperously embarking on its second century.

CRIMINAL IRRESPONSIBILITY

There has been much discussion, not all of it conspicuously illuminating, of the criteria by which it shall be decided whether a person accused of an act legally defined as a crime shall be held accountable for his act and therefore punished, or not accountable by reason of mental disability.

Much of this discussion has related to the

M'Naghten Rules formulated after months of study by the British judges in 1843. Critics of these rules remind us that much knowledge concerning psychiatric conditions has accumulated during the hundred and more years since the M'Naghten Rules were set up and that they are therefore out of date. These arguments as voiced from time to time show a notable similarity but the evidence on which they are based is not set forth with convincing clarity.

Some statements relevant to this matter appear in the Cavendish Lecture, "The Doctor in the Witness-Box," by Viscount Simon before the West London Medico-Chirurgical Society on May 11, 1953, and printed in the British Medical Journal of July 4, 1953.

Viscount Simon draws attention to the distinction which all concerned must keep clearly in mind between the function of the medical witness and that of the jury:

> The question for the jury is whether the accused was insane *so as not to be responsible according to law*. The crucial issue therefore is—What does the law regard as "criminal irresponsibility"? That is a legal, and not a medical, question. It cannot be answered by a doctor in the witness-box. It can be expounded only by the Judge on the bench who is summing-up to the jury. . . . Once it is realized that the question is a *legal* question—What does the law regard as excusing a murderer from responsibility?—and that according to the present law a person of unsound mind may nevertheless be criminally responsible, the criticism based on a supposed clash between medical and legal conceptions of insanity disappears.

Paraphrasing the M'Naghten Rules the Cavendish Lecturer said:

> If a person does a criminal act and has the capacity to know what the act is and to know that the act is one which he ought not to do, he commits a crime.

Brushing aside the objection of antiquity Lord Simon continued:

> No doubt the science of psychiatry has made immense strides since the M'Naghten Rules were drawn up in 1843. . . . But in law, in determining who is to be treated as criminally irresponsible, must apply definite criteria. So it is really no answer to say that the legal definition of insanity implies a conception of unsoundness of mind that is obsolete. Dr. Yellowlees, writing from a long experience of the practical side of the business, has put it on record that in actual practice the M'Naghten Rules work, and work well. Judges and juries are impressed by really strong medical evidence of irresponsibility, and the legal formula is not of cast-iron, but allows of elastic application.

It is difficult to see how a member of the medical profession could feel qualified to quarrel with the points made in Lord Simon's exposition. Whether the accused is insane in the medical sense is not the question, but rather whether he is insane in the legal sense, which is quite a different thing; and the doctor in the witness box does well to remember that he is in court and not in the clinic. Moreover, there is something to be said for the legal definition. It asks two plain questions, a negative answer to either of which is sufficient for an exculpatory judgment. If on the other hand the expert witness is asked for a definition of medical insanity he will find himself in the same position as Lord Blackburn who stated in the House of Commons: "I have read every definition which I could meet with and never was satisfied with any of them, and I have endeavored in vain to make one satisfactory to myself. I verily believe it is not in human power to do it."

It has been suggested that the diagnoses of some form of textbook insanity should be accepted as evidence of irresponsibility. That would simplify matters decidedly. But unfortunately medical experts do not agree as to the diagnosis of textbook types of insanity. Worse still, they may not agree as to whether the accused is sane or insane, as the "battle of the experts" numerously demonstrates.

Furthermore, with our present jury system the question of the accountability of the accused is for the twelve good men and true to answer on the basis of the evidence they have heard. If the exhibition of a clinical diagnosis were, *ipso facto*, to establish irresponsibility there would be nothing left for the jury to do except agree with the expert witness. It would be the psychiatrist who would decide the issue. But Lord Simon reminds us that the question of responsibility is a legal not a medical one, one that the doctor is not entitled to answer. That seems to dispose of the clinical diagnosis argument. It is of course understood that the doctor in applying the M'Naghten Rules is merely giving his opinion which the jury is free to accept or reject.

The M'Naghten Rules may not be perfect criteria of irresponsibility. It is sometimes suggested that even the "laws of nature" might be improved. The Rules do cover the two aspects of behavior that can be usefully considered in relation to responsibility—the intellective and the ethical. Critics urge that the Rules take no account of "emotional" springs of conduct. "Emotional" states are having their day just now, as if they represented something other than "mental." Perhaps we may wisely leave that slippery feature out of the discussion—along with the "irresistible impulse."

The fact remains that with all the discussion and criticism of the M'Naghten Rules over the years no better rules have been found. For one-hundred and ten years they have worked and kept pace with our fallible human judgment, a tribute to the wisdom and foresight of the fifteen British judges who embodied them in their report to the House of Lords in 1843. In the opinion of an American court, the M'Naghten formula "is now so completely imbedded in the administration of criminal law as to be considered no longer subject to challenge." And a Canadian jurist remarked, both the legal and medical professions should be concerned not with the question whether the law should be changed but rather whether its administration can be improved.

VERITAS

If the spirit of truth is the kernel of religion, then men of science are truly religious beings. They not only believe in the immortality of man, but they are convinced that this immortality is material. And believing so, they work for the betterment of the world and of humanity; this is the most essential part of their daily religion.

But the one thing the man of science insists upon above all others is that his currency be struck in the mint of truth and that each coin must carry on its face the stamp of verifiable truth. Once let the human fancy free to wander at will untrammeled by fact and the markets of the scientific world will be flooded with debased coin. When a scientific man calls upon spirits, mysterious essences, and uncertain shadows to explain phenomena of the living and of the dead world, he is drawing cheques upon imaginary banks.

SIR ARTHUR KEITH

NEWS AND NOTES

American Psychosomatic Society.—This society will hold its eleventh annual meeting at the Jung Hotel in New Orleans on March 27 and 28, 1954. Two of the 4 sessions will be devoted to panels, one on neoplastic disease, the other on neurophysiological mechanisms.

There is no registration fee for members; admission fee for nonmembers is $5.00, for students, interns, residents, fellows, and those in full-time academic positions, the charge is $1.00. Registration will begin at 8:00 a.m. on Saturday, March 27; the first session starts at 9:00 a.m. Following the Saturday afternoon session, the Society will hold its traditional cooperative cocktail party.

Programs will be available from the Society office after February 1. For further information write to the Society's office at 551 Madison Avenue, New York City 22, New York.

Hubert Norman Prize for Addiction Studies.—The Society for the Study of Addiction announces the constitution of the Hubert Norman Prize of one hundred guineas, established to stimulate research into causation and prevention of addiction. The competition is open to both medical and nonmedical workers throughout the world, only officers of the Society being ineligible.

The subject for the first Hubert Norman Prize will be: *Study or investigation of substances, other than antabuse or its derivatives, causing distaste, disinclination, or dislike for alcohol.*

Contributions will be assessed by a panel of independent experts; should no contribution be of sufficient merit, the prize will not be awarded and the amount will be reserved for the following Prize. Three copies of the manuscript typewritten in English should reach the Editor of the *British Journal of Addiction,* 34 Addison Road, London, W. 14, England, not later than December 31, 1954. The award will be made in January 1955. The selected contribution may be published in the Journal and the winner invited to present it at a meeting of the Society.

Inquiries concerning the competition should be addressed to the Editor of the *British Journal of Addiction.*

Shortage of Medical Social Workers.—Although medical social work is a relatively young profession, there are approximately 3,825 persons actively engaged in this work in the United States today, according to the publication "Health Manpower Sourcebook, Section III: Medical Social Workers," just released by the Public Health Service of the Department of Health, Education, and Welfare. There are, however, 3 times as many positions open in this field as there are persons to fill them, and it is estimated that 800 to 1,000 graduates a year will be needed to fill the vacancies.

The Sourcebook, containing hitherto unpublished data from the U. S. Department of Labor and the American Hospital Association and information from the American Association of Medical Social Workers, presents for the first time a comprehensive study of the employment, educational background, and personal characteristics of medical social workers.

Copies of the book are available at 40 cents each from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Chicago Council of Child Psychiatry.—A group of 24 of the child psychiatrists of the Chicago area have formed the Chicago Council of Child Psychiatry. The purpose of the organization is the exchange of information and ideas in the field of child psychiatry and those fields pertaining to the promotion of mental health of children. The Council will encourage support and development of those community resources and services contributing to these aspects of child welfare.

Officers for 1953-54 are: Dr. George J.

Mohr, president; Dr. Eugene I. Falstein, vice-president (and president-elect); and Dr. George L. Perkins, secretary-treasurer. Others on the executive committee for the same period are: Dr. Irene Josselyn, Dr. Sophie Schroeder Sloman, and Dr. Harry Segenreich.

Workshops in the Rorschach Method.—The department of psychology of Western Reserve University will hold 3 workshops in the Rorschach method, with Associate Professor Marguerite R. Hertz as instructor, beginning June 14, 1954.

The first workshop, an introduction to the Rorschach method, consisting of lectures, demonstrations in hospitals, and supervised training periods, will run from June 14-18 inclusive. The second workshop, an intermediate course in the interpretation and clinical application of the Rorschach, will begin June 21 and run through to June 25. Students from the first workshop may continue with the second. The third workshop is an advanced course in the interpretation of Rorschach records of various personality and clinical groups. It is limited to professionally trained persons who have had at least one full year of experience with the Rorschach method. It will be held from June 28 through July 21.

The fee for the workshops, which will be limited to 25 persons, is $40.00. For further information write Marguerite R. Hertz, Psychological Laboratory, Western Reserve University, Cleveland 6, Ohio.

Fourth National Conference on Health in Colleges.—This conference, to be held May 5-8, 1954, at the Hotel Statler in New York City, is being sponsored by the American College Health Association in conjunction with approximately 40 national organizations interested in aspects of health and education. Dr. J. L. Morrill, president of the University of Minnesota, is president of the conference. Previous conferences were held in 1931, 1936, and 1947.

According to Dr. Dana L. Farnsworth, medical director of the Massachusetts Institute of Technology and chairman of the conference executive committee, attendance of from 4 to 5 hundred college and university presidents, deans, physicians, nurses psychologists, specialists in physical education, health educators, student counselors, and others who have a stake in the health of students, including students themselves, is expected. As a basis for planning the conference, a questionnaire will be sent to 200 college presidents throughout the United States by Dr. Morrill.

Alcoholism Research, New York City.—The Mental Health Commission of the State of New York has made two additional grants totaling over $27,000 annually to be used for another alcoholism clinic and research project in New York City.

Operation of the clinic, to be located at Kings County Hospital in Brooklyn, as well as direction of the research, will be under the department of psychiatry of the New York College of Medicine, with Dr. Howard W. Potter, professor of psychiatry, in charge. Raymond G. McCarthy, director of alcoholism research, and Dr. Donald Gerard, research psychiatrist, both of the Mental Health Commission staff, will serve as liaison between the project and the commission. One phase of the research is planned to develop epidemiological studies in alcoholism.

Staff of the clinic will include a psychiatrist, a fellow in internal medicine, psychiatric caseworker, and clinical psychologist, in addition to necessary secretarial and clerical personnel. Services of the regular staff on the medical school will also be available.

Neuropsychiatric Meeting at North Little Rock.—Dr. Harold W. Sterling, manager, has announced that the sixth annual Neuropsychiatric meeting will be held at the Veterans Administration Hospital, North Little Rock, Arkansas on February 25 and 26, 1954.

In addition to scientific sessions throughout the 2-day period, there will be a large number of technical exhibits prepared by hospital staff members. Dr. Kenneth Appel will be the principal speaker at the dinner meeting, Thursday evening, February 25. All interested professional personnel may attend; there will be no charge.

Further information may be obtained by writing to Dr. Ewin S. Chappell, Director, Professional Education, Veterans Administration Hospital; North Little Rock, Arkansas.

Death of Dr. C. F. Menninger.—On November 29, 1953, Dr. Charles Frederick Menninger died at his home in Topeka, Kansas, at the age of 91.

Dr. Menninger, father of Drs. Karl and William Menninger, was born in Indiana. His father, a native of Germany, had migrated to this country and settled in that state. Entering the Hahnemann Medical College in Chicago, Dr. Menninger Sr. was graduated in 1889 and received his medical degree from Kansas Medical College in 1908. He took up the practice of general medicine in Topeka, and later founded the Menninger Clinic in that city where he and his sons worked together. Eventually he became chairman of the board of trustees of the Menninger Foundation which, as a greatly expanded development, grew out of the earlier clinic.

Dr. Menninger became a fellow of The American Psychiatric Association in 1936.

Metropolitan Washington District Branch of APA.—Notice has been received of the establishment of this new organization on the basis of approval by the APA Council, November 1, 1952. The president, Dr. Henry P. Laughlin, reports that the Washington District Branch will work in close collaboration with the Washington Psychiatric Society. Responsibilities will be divided between national and local, the Branch being mainly concerned with APA policy on a national level; and the Washington Psychiatric Society mainly on a local level.

Officers, in addition to President Laughlin, are: Dr. Douglas Noble, vice-president; Seymour J. Rosenberg, secretary; and Marshall Ruffin, treasurer. Chairman of the membership committee is Dr. Lester L. Burtnick and Dr. Addison M. Duval is chairman of the committee on policy.

Menas S. Gregory Lecture.—Dr. Wilder Penfield, director of the department of neurology and neurosurgery, Montreal Neurological Institute, McGill University, delivered the annual Menas S. Gregory Lecture at Bellevue Hospital, New York City, December 10, 1953. The subject of Dr. Penfield's lecture was "Some Observations on Amnesia."

Brazilian Psychiatrist at Yale.—Appointed visiting fellow for one year from October 1, 1953, Dr. Oswaldo Camargo has joined the staff of the department of psychiatry, Yale University, under Dr. Redlich's chairmanship.

Dr. Camargo is Psychiatric Inspector for the National Service for Mental Diseases, Rio de Janeiro, and a corresponding member of The American Psychiatric Association. His present assignment is sponsored by the Brazilian National Research Council and the Ministry of Health.

Association for Research in Nervous and Mental Disease.—At the Thirty-Third Annual Meeting of the Association for Research in Nervous and Mental Disease held in New York City on December 11-12, 1953, the following officers were elected for the year 1954: President, Dr. Rustin McIntosh; First Vice-President, Dr. Walter Klingman; Second Vice-President, Dr. William S. Langford; Secretary-Treasurer, Dr. Clarence C. Hare; Assistant Secretary, Dr. Rollo J. Masselink.

The subject for the 1954 meeting will be "Psychiatry and Neurology of Childhood."

BOOK REVIEWS

Sexual Behavior in the Human Female. By *Alfred Kinsey et al.* (Philadelphia: W. B. Saunders, 1953. Price: $8.00.)

This book presents primarily a statistical analysis of data accumulated over a period of 15 years, based on the sexual histories obtained by interview from nearly 6,000 females. Large or fairly adequate samples in the groups ranged from 16 to 50 years of age at the time of reporting. More than 50% had some college background. Many had never married. Some 90% of the total samples came from urban areas. The geographical areas were well represented except for the Southeast, the Pacific Northwest, and the Rocky Mountain. The inadequacies of the samples were largly in age groups over 50, those of low educational levels, Catholics, rural and laboring groups, especially among older females. Only two persons did the interviewing for more than 80% of the total number of histories. The statistical calculations show the incidences and frequencies both of the female's sexual experience and of her experience in orgasm. In addition to the case histories, the recorded data on human sexual behavior were given careful consideration. Community and clinical studies, along with those dealing primarily with anthropological and legal aspects, were fully evaluated.

A second section of the book deals with the various types of sexual activity among females. There are many statistical tables, charts, and fundamental observations. Of particular value to the psychiatrist is the chapter on the total sexual outlet, with notes on the development of sexual responsiveness among single and married females with individual variations fully noted.

The third part deals with the comparison between the male and the female. Sections are devoted to the anatomy, the physiology of the sexual response, the psychological factors, and the neuromechanisms, as well as the hormonal aspects of the total problem.

The book, therefore, covers in an adequate manner many aspects of the problem of sexual response in the female. The statistics appear reliable, the charts clear and descriptive, the methods of accumulating data and its evaluation, meticulous. The data collected by the interviewers would appear to be based on facts, as far as memory would allow. Great care was taken not to pass judgment on any type of activity. Records taken in code were kept confidential to an unusual degree. Although the facts obtained were based on recall, the authors feel the case history studies are characterized by reliability and validity to a large degree. With this opinion, the reviewer would concur. In addition, the review of the literature, with its extensive bibliography, is fundamentally sound.

The conclusions drawn by the authors, both from their own investigations and from those of others, will not be fully accepted by all scientists, but many of them are statistically certified as the result of this thorough investigation. Few facts were disclosed by this study that were not already known to psychiatrists and indeed to the world in general. It has long been realized, for instance, that the male is conditioned by sexual experiences more frequently than the female. This is only one of the premises elaborated by this study but, as the authors admit, the data do not explain why such a situation is present in human relations. Again, even La Rochefoucauld knew in the mid-seventeenth century that "there are women who never had an intrigue; but there are scarce any who never had but one." The 1953 version remains unchanged.

Taking into account the somewhat restricted method used in collecting the facts presented, the book gives us a balanced survey of considerable value. Some may question, with reasonableness, whether the vast effort needed to collect the data was justifiable but, although the answer may be in the negative, medicine should be grateful for this survey, the product of many years of labor by conscientious and honest investigators.

Henry R. Viets, M. D.,
Boston, Mass.

Success in Psychotherapy. Edited by *Werner Wolff* and *Joseph A. Precker* (New York: Grune & Stratton, 1952, Price: $4.75.)

This monograph contains a series of 7 essays by various authors mainly oriented toward a crucial question of psychotherapy, viz., success—what is it—how is it come by? As is frequently the case in books in which many hands have had a part, the relationship among the various contributions is loose and there is no chapter that attempts to bring the material together.

The first chapter, "Problems in the Definition and Measurement of Success in Psychotherapy," by Mosak is of a general character and outlines many of the difficulties of evaluating psychotherapy from an objective viewpoint. The second chapter by Thetford studies the responsivity of the autonomic nervous system to frustration in an untreated control group and in an experimental group before and after "client-centered psychotherapy." It is reported here that it was possible to distinguish between these groups by means of the galvanic skin response and the cardiac rate in terms of a higher threshold to frustration in the experimental group after treatment. In the third chapter, entitled "Personality Changes in Client-Centered Therapy," Haimowitz and Haimowitz report that they applied the Rorschach Test to 3 groups, 1 receiving group therapy, 1 receiving individual and group therapy simultaneously, and an untreated control group. The data were analyzed on a 10-point scale oriented toward certain attitudes and processes felt to be of importance for personality integration. The authors

believe they demonstrate that changes in the direction of better adjustment could be detected. The fourth chapter by Hamlin, Berger, and Cummings also used Rorschach material but with a different scale to rate adjustment. They found there was some indication that the test may be used to study change following therapy. The fifth chapter by Hogan attempts to measure client defensiveness with a scale designed for this purpose on the theory that successful treatment results in a reduction of neurotic defensiveness. The sixth chapter by Raskin deals with a locus-of-evaluation factor in psychotherapy. A distinction is made here of a counselor thinking for the client, about the client, and with the client. Personality organization of the client also involves a locus-of-evaluation concept. Clients may begin counseling by reporting or showing excessive dependence on the evaluations of others, but after successful treatment make a distinction between dependency and self-evaluation. There was a shift in the locus-of-evaluation as shown by a scale devised to measure this factor from "others" to "self" after counseling in 10 cases. The final chapter, "Circular Behavior," by Anderson is a theoretical discussion based on material from many sources. Successful psychotherapy enables an individual to escape from a level of personality disintegration or from a vicious circle where domination of or by others is marked to a growth circle characterized by socially integrative behavior.

The first 6 chapters are mainly inspired by the Rogers' point of view and several are Ph.D. theses apparently carried out under his direction. To what extent the material may be referred to as involving psychotherapy is questionable, since the objective and method are different from psychotherapy as understood by psychiatrists. A more proper title of the monograph would be "Success in Counseling." These essays, however, show sincere attempts to grapple with the difficult problems of measuring changes that occur during interpersonal relationships oriented primarily toward altering attitudes that are chiefly conscious, on a short-term basis. Because of this, psychiatrists who are interested in the more general problem of psychotherapeutic research will find many valuable suggestions in the monograph.

P. E. Huston, M. D.,
State University of Iowa.

Crime Prevention Through Treatment: The 1952 Yearbook of the National Probation and Parole Association. Edited by *Matthew Matlin.* (New York: National Probation and Parole Association, 1953. Price: $1.50, paper; $2.00, cloth.)

The psychiatric content is surprisingly meager in this 1952 Yearbook. Except for a compact and useful paper by Chapman, not a single article is by a psychiatrist or clinical psychologist. It is not that the authors are unfamiliar with psychiatric concepts, but rather that they take them for granted. There are references to the importance of personality factors in delinquent behavior and to the value of psychiatric advice in rehabilitation. But these are peripheral and tangential, and not in the mainstream of any of the papers.

There is material on the handling of both adult and juvenile offenders, a legal digest, a review of certain internal operational problems of probation and parole, and Dr. Chapman's paper on drug addiction. Except for an off-trail and rather hard-hitting article by Charles Boswell, all of the papers are highly conventional in doctrine, many indeed to the point of stereotypy. The standard and acceptable clichés of good probation and parole work are all here. This does not make the volume any less *true* of course, though it makes it somewhat pedestrian. A few of the papers are highly practical: the one on job finding by Jean Long, the one on drug addicts, the one on nonsupport cases, and the one by Paul Tappan dealing with civil rights. The interesting concept of "civil death" is understood by few psychiatrists. Tappan writes lucidly about it though he makes no effort to interpret the psychiatric factors behind it, which is fair enough since he is a sociologist not a clinician. Another interesting paper by Frank Remington is on the semantics of the terms "felony" and "misdemeanor."

Like all anthologies, this is a grab bag of ideas, some good, some bad. Parts of it are thought-provoking for those who work in the probation and parole field. And this would include the psychiatrist who serves the criminal court or works with agencies interested in the delinquent.

Henry A. Davidson, M. D.,
Washington, D. C.

Psychological Disorder and Crime. By *W. L. Neustatter, M. D.* (London: Christopher Johnson Press, 1953. Price: $4.50.)

In their views towards criminal behavior, psychiatrists seem to fall into 3 groups. There are those who argue that criminal behavior is *per se* abnormal, hence is not practiced by any but abnormal mentalities. At the opposite pole are those who feel that most criminal behavior is motivated by fairly simple, readily understood, conscious forces in people who are, by and large, psychologically normal. And in the middle of the road stand those who believe that criminal behavior is understandable only in terms of subtle, unconscious forces, but who do not conclude thereby that most criminals are psychiatric cases, or that psychotherapy is the answer to the problems of crime.

Dr. Neustatter belongs to the second school. He believes that most law-breakers are not suffering from, as he puts it, "psychological illness." He knows of course that sometimes there are deep-seated emotional factors; but of this he says, "It is fairly obvious when a psychological disorder is present. The man who picks your pocket would never ask to see a psychiatrist, unless of course, he is caught."

This book is addressed to lawyers, social workers, judges, probation officers and other intelligent laymen. It includes a compact review of the elements of descriptive psychiatry, but very little attention is

paid to dynamic factors. For instance, a wide variety of sexual deviations are described, but the only explanations offered are either endocrine abnormality or "latent predisposition." There is a 20-page chapter entitled "Murder," which is devoted almost entirely to a recital of some bizarre murders with little effort to explore the psychopathology beyond the level of referring to the defendant's "frustrations" or "bitterness."

The book bristles with a common sense, "no nonsense" sort of attitude towards the delinquent. For example, he endorses the use of a "firm hand" in the handling of hysteria, and quotes with approval a limerick which said that a hysterical patient needed, not a psychiatrist but a "psmackbottomist". The patient who commits a crime while in a fugue or amnesic episode is, Dr. Neustatter suggests, being antisocial because "fundamentally he wants to be or because he succumbs to temptation like any other law-breaker." To explain the rising rate of juvenile delinquency in Britain, the author says "The poor who previously were expected to keep in their places . . . accepted this as the nature of things. But today, many are no longer willing to do this, preferring an easy way of making money quickly." Another factor in juvenile delinquency is, he thinks, "the growing insistence on the rights of the underdog . . . producing a frame of mind in which they feel justified in taking the law into their own hands."

One of the author's final conclusions is that "Satan finds mischief for idle hands, even in these days of psychological textbooks. . . . The explanation for much mischief is nothing more subtle than that."

Dr. Neustatter simply does not believe than an obsessive compulsive psychoneurosis can lead to antisocial behavior. Kleptomania, he says, is part of a psychopathic personality. As for psychopaths, here oddly enough, he is somewhat more sympathetic, though his reason will strike many American psychiatrists as naïve. Here is his reason: ". . . genuinely cannot resist their urges, for otherwise why should they get themselves into needless trouble in spite of repeated punishment?" Another instance of the author's curious naïveté: speaking of sex offenders, he writes that if the offender "is stable, honest, reliable, has a good work record, then there is a good chance that he will not repeat the offense."

The book gives an interesting picture of the operations of British criminal courts and correctional agencies. The psychiatry is largely enumerative—a list of diagnoses, a description of each, a roster of the types of offenses commonly associated with each. The text is salted with interesting case reports. The approach to forensic psychiatry here is essentially tactical. It is too elementary for the social worker, jurist, or psychologist who is familiar with basic psychodynamic concepts; but for less sophisticated readers, it is a good primer.

HENRY A. DAVIDSON, M. D.,
St. Elizabeths Hospital,
Washington, D. C.

FUNCTIONAL NEUROANATOMY, Second Edition. By *Wendell J. S. Krieg, B. S., Ph. D.* (New York: Blakiston, 1953. Price: $9.00.)

The plan and scope of this excellent textbook have not been changed in preparing the second edition. The text has been altered here and there to bring it into line with advances in our knowledge during the past 10 years, and new illustrations have been added as changes in the text required them and where experience in teaching has shown them to be needed, as in the description of the gross anatomy of the brain for example.

The most significant changes appear in the description of the auditory system, the diencephalic nuclei, the motor system and the cerebral and cerebellar mechanisms. In altering and amplifying these sections the author has included additional original illustrations. These include reconstructions of thalamic and hypothalamic nuclei, as they would appear in serial thick sections, and drawings of cerebral and cerebellar fibre bundles as they would appear in transparent brains. In all, 89 new and very helpful illustrations have been added. It is unfortunate that the figures are not numbered consecutively because it is not always easy to find the figure referred to in the text.

The textbook is designed for medical students and of necessity the presentation is dogmatic. The advanced student must keep this in mind.

C. G. SMITH, M. D.,
University of Toronto.

PROGRESS IN CLINICAL PSYCHOLOGY. Edited by *D. Brower and L. E. Abt.* (New York: Grune & Stratton, 1952.)

The surge of clinical psychology within the last decade has been a zealous attempt of a young science to keep abreast of the rather excessive demands for knowledge and service that have been made on it. Training programs have been greatly expanded and improved. Research has flourished; new clinical techniques have been devised, and older ones have been constantly subjected to re-evaluation. In the tradition of science, clinical psychology has combined basic experimental tools with clinical acumen in attacking the problems of human behavior and psychopathology.

Brower and Abt in editing the 2 bound sections of this first volume of *Progress in Clinical Psychology* have assembled a wide variety of material in order to cover developments in this field since World War II. They have carefully included 42 papers compiled by 39 specialists. The first section includes an introductory chapter on the historical and systematic emergence of clinical psychology, 13 chapters on diagnostic and evaluative procedures, and 6 chapters dealing with psychotherapy. The second section includes 5 chapters on developmental processes, 11 on the application of clinical psychology to special areas, 5 on the approaches to clinical psychology and a concluding chapter on professional problems.

While most of the material covered in this book

can be found, in greater detail, in the psychological literature, the editors have performed a service in assembling and integrating this information into one readily accessible source. This not only provides a panoramic view of recent developments in clinical psychology, but also serves to stimulate further research and thinking. In a compilation of this sort involving so large a number of contributors, it is reasonable to expect variability in writing style and quality. However, taken as a whole, the book is clearly written and reads easily. Large bibliographies appear in many of the papers; thus the book should prove a useful source of reference.

As a whole the book seems to be geared toward the critical and objective assessment of the theoretical and experimental literature. It is regrettable therefore, that in some instances, this goal was not fully realized. For example Brower, in his chapter on "Intellective Functions: Adults," an area in which research has been abundant, includes only 18 references. He acknowledges that there has been a tremendous amount of research in the past 6 years on scatter and subtest patterning of the Wechsler Bellevue Intelligence Scale, but does not critically appraise or even summarize the results of these studies. On the other hand, Ellis includes 394 references which represents a thorough and exhaustive coverage in his chapter on "Self-Appraisal Methods." However, he tends to tabulate the number of studies showing positive results against those that show negative findings as if the experiments were equal units which can be added or subtracted. Even when experiments are designed to deal with the same problem, they frequently differ with respect to many important variables. Consequently such an account of research data may be misleading.

In her chapter on the Rorschach, Hertz attempts to evaluate objectively 262 investigations, but her long, favorable clinical experience with this instrument prevents her from completely accepting the frequent pessimistic research evidence. Early in her chapter she states, "It is the purpose of this paper to portray the Rorschach method as one which, though still lacking unqualified scientific acceptance as a psychological instrument, nevertheless, in the hands of an experienced clinician, is a clinical instrument which works" (p. 108). A similar view is expressed by Brown in his summary of Human Figure Drawings as a projective test. He asserts, "The paucity of statistical studies and the ambiguous results obtained from them confirm the conviction of the clinical psychologist who is working with patients that he has little to learn from a methodology which uses over-simplified dichotomies and disregards the constellative aspects of a dynamically intricate device" (p. 182). Brown implies that the statistical and experimental techniques employed in analyzing these data are inadequate, rather than also raising the possibility that the instrument itself may be inadequate. He goes on to state that ". . . . figure drawings in the hands of a skilled clinician can contribute to the detailed etching out of an internally consistent and dynamically cohesive interpretation" (p. 182). Surely, samples of behavior from a given individual can be effectively utilized by "skilled clinicians," but it seems to this reviewer that it is the responsibility of the scientific clinician to make his personal validations public.

While the aforementioned criticisms are applicable to other chapters, they should neither prevent the material from being useful to others, nor detract unduly from the many critical and objective papers included in this volume. The scope of this book is wide, and its over-all effects are stimulating and informative. The editors plan to publish future progress reports every 2 or 3 years. The specialist in clinical psychology and psychiatry should find these reports a valuable aid in keeping abreast of the recent literature and pertinent trends.

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State University of Iowa.

Morbus Alzheimer and Morbus Pick. By *Torsten Sjögren, Hakon Sjögren,* and *Åke G. H. Lindgren.* (Copenhagen: E. Munksgaard, 1952.)

The authors have analyzed 80 cases of presenile psychosis drawn mainly from the mental hospitals in Stockholm and Gothenburg. Alzheimer's disease has been verified histologically in 18 cases and Pick's disease also in 18 cases. In 29 cases a diagnosis of cerebral atrophy of the Pick-Alzheimer type has been made on clinical and encephalographic evidence and in the remaining 15 cases the diagnosis of Pick-Alzheimer syndrome has been made on clinical examination alone.

The first section of the monograph is a thorough investigation of the genealogy of these 80 cases. There were 58 women and 22 men. The life expectancy at the onset of the disease was less than half of that for a person of the same age in the normal population. Thirty cases among the siblings, parents, or grandparents had been diagnosed as suffering from the Pick-Alzheimer syndrome, presenile dementia or senile dementia. Pick's disease showed a greater hereditary tendency than Alzheimer's disease in a proportion of 22 to 8. These 2 diseases taken together are believed to account for about 10% of all presenile and senile psychoses in Sweden. There were calculated to be 500 contemporary living cases, with an annual increase of 75 cases. An interesting and unexplained finding was that in the histologically verified cases, Pick's disease predominated in the cases from Stockholm, whereas Gothenburg's cases were mainly diagnosed as Alzheimer's disease.

The clinical analysis shows that the mean age of onset in the Alzheimer cases is 55.3 years and 55 years for the cases of Pick's disease. In the deceased patients, Alzheimer's disease had a duration of 6.6 years and Pick's disease 7 years. The diseases began earlier in men than in woman, 52.4 and 56.2 years respectively.

A spontaneity has been found as frequently in the early stage of Alzheimer's disease as in Pick's disease. Increased muscle tonus and disturbance of gait were present in the cases of Alzheimer's disease and absent in Pick's disease. Pneumoencephalographic findings were not helpful in differentiating between the 2 conditions. In 5 of the 18

histologically verified cases of Pick's disease, there had been, in the early stage of the disease, social and ethical aberrations including lying, stealing, and the squandering of money. These errors of behavior were not noted in Alzheimer's disease. The 2 diseases were indistinguishable, clinically, in their late stages.

The monograph ends with the pathological findings in 18 cases of each disease.

In Alzheimer's disease the parietal as well as the frontal and temporal lobes usually showed cortical atrophy. The parietal lobes were not involved in Pick's disease. The Alzheimer cases also showed loss of ganglion cells and other degenerative changes in the basal ganglia. Basal ganglion degeneration was found only once in the 18 cases of Pick's disease. The additional findings of atrophy of the anterior end of the corpus callosum, (in 2 cases), and of the cerebellum, (in 1 case), were seen in Alzheimer's disease.

In Pick's disease the degenerative changes were confined to the frontal and temporal cerebral cortex.

In Alzheimer's disease the degenerate cortical tissue contained numerous argentophile plaques and changes in the neurofibrils of the cortical cells. These changes were never found in Pick's disease. Ballooning of degenerate cortical nerve cells was, on the other hand, found uniformly in Pick's disease and never in Alzheimer's disease.

ERIC A. LINELL, M. D.,
Banting Institute,
Toronto.

PERSONALITY IN THE MAKING. By *Helen L. Witmer* and *Ruth Kotinsky*. (New York: Harpers, 1952. Price: $4.50.)

This book is "The Fact Finding Report of the Mid-Century White House Conference on Children and Youth." It is an ambitious survey of the present state of knowledge of what goes into the making of personality, and rather more broadly than this, what goes into the making of strong children and sturdy, reliable citizens. A tremendous amount of ground is covered, some of it well documented, but some without supporting bibliographical references. The book throughout is provocative and stimulating reading. No previous work has covered the ground as comprehensively or as well. The preface offers a statement of purpose, and recognizes that the book contains some speculation by saying that all workers in these fields "are acutely aware of great chasms of ignorance." Accepting the fact that convincing, quantitative research is scarce in the area of personality development, the authors pose such questions as: What are the real roots of character? What experiences in home and school are most conducive to the attainment of the good life in maturity? What configuration of events in the life history leads to the making of a bigot? What is the effect of economic insufficiency upon developing personalities? What are the effects upon personality of cultural variations? The authors have used psychiatric and medical consultants, but the main orientation is through the social sciences and psychology.

The first part of the book deals with the development of the healthy personality and covers such aspects as family background, the influences of environmental stresses, and favorable factors. The chapter on the influence of congenital characteristics may elicit some controversy from dynamic psychiatrists who feel that activity, vigor, and sensitivity are largely determined by the child's experiences after birth rather than by constitutional determinants. The point is clearly made, however, that personality is formed in the home; that loving and intimate family relationships create trust, security, and confidence in the child; and that personal dignity, a sense of value, and strong personalities in the parents tend to develop the same characteristics in the child. The book does not attempt to go into psychiatric theory regarding incorporation of parental images in the personality structure of the child, but nonetheless, makes the point that factors present in the environment and personalities of the parents have a determining effect on the young developing personality.

One of the most impressive sections of this book has to do with disturbances in the development of children, arising from social, cultural, and physical limitations, and underprivilege in general. Evidence is cited to show that poor nutrition in the parents creates low resistance in the children, and that children brought up under substandard conditions of housing, feeding, etc., are more subject to illness, have a higher death rate, and a higher delinquency rate than children from "better" surroundings. This indicates the general way that substandard citizens are produced.

A very valuable chapter is on the effects of prejudice and discrimination. The influence of these factors in minority groups is stressed and reasonably well documented. Some mention is made of the deleterious effects of discrimination and prejudice on the character of the oppressor. The devastating material on the subject of such changes in character brought about by playing the role of the oppressor (such as the work of Bettelheim on concentration camps) has not been cited here.

The second part of this book is developed under the over-all heading "Implications for the Conduct of Social Institutions." The line of thought is advanced that if the institutions of our democracy are to foster strong and sound personalities they must work toward creating a favorable environment, both in the social and cultural scene as well as within the individuals involved. The school must concern itself with the total personality, laying as much emphasis on the emotional development of the child as on his intellect or knowledge. Similarly, the church, the social agencies, the leisure-time services, etc., must all direct themselves towards the same comprehensive goal.

As a psychiatrist, I feel that the participation of the medical profession in this over-all picture has been somewhat underemphasized, although not entirely neglected. Reduction or loss of identity of the medical role in the mental health movement has been

a source of great concern to many child psychiatrists. The recently formed Academy of Child Psychiatry is a manifestation of this fact, and constitutes in part, at least, an attempt to clarify and underscore the medical aspects of emotional development of children by defining a subspecialty to study and work with problems arising in these areas. Concern with the social and cultural factors in mental illness have the same significance for the child psychiatrist that any study of etiology has for a medical man. If the field has been too much taken over by social scientists it is the psychiatrists themselves who are at fault and who are taking measures to correct the situation.

The last section of this book deals with methods for further research, definition of areas in which quantification is still needed, techniques for evaluating programs, and other suggestions that will be of the greatest help in "the longitudinal approach to the problems of helping American citizens achieve mature, physical, and emotional development." The book would be stronger if it were more completely documented with bibliographical references, and a separate index of authors would help considerably in making the material readily accessible. This is an ambitious and extremely successful undertaking, presenting a comprehensive view of the subject that can be found nowhere else.

MARGARET C.-L. GILDEA, M. D.,
St. Louis, Mo.

PSYCHONEUROTIC ART. ITS FUNCTION IN PSYCHOTHERAPY. By *Margaret Naumberg*. (New York: Grune and Stratton, 1953. Price: $6.75.)

This is a companion to *Schizophrenic Art* by the same author. It gives in pictures and words, with remarkable clearness, an obsessive-compulsive patient's growth to "inner strength and peace." The departures of 2 kinds of anxiety are nicely differentiated from the trace of compulsive anxiety left behind. The suggestion is made that images go deeper than words and sometimes escape the cursor, but also that the pictures increase the flow of words. Certainly this patient's flow of fancy is never checked. The illustrations, many in color, are fully described in the text and mark, in a striking way, the progress toward recovery.

After the case history come retrospective accounts by the patient, comparisons of early and late Rorschach tests, and exhaustive excellent bibliographies. Some of the quoted opinions may not give a full account of the quoted author's ideas.

In Kenneth Appel's words in the preface, this is "a new attack, stimulating and provocative."

EARL D. BOND, M. D.,
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ADOLESCENCE. By *Marguerite Malm and Olis C. Jamison*. (New York: McGraw-Hill, 1952. Price: $5.00.)

"The objectives of this book . . . are three: to help adults get along better with the adolescent, to help them understand what the adolescent needs to live wholesomely and happily, and to show how these needs may be met." These objectives are to a large extent fulfilled.

An intimate view of adolescents, their special ways of responding, their views of the world, their problems, their activities, is given by the authors. The most appealing parts of the book are the quotations from adolescents which enable the reader to sense their feeling directly. Unfortunately in the pages devoted to dating, necking, and petting, we do not get a really close view of these important activities. They are treated somewhat distantly.

A valuable teaching technique is found at the end of each chapter where a paragraph entitled "Reminiscences" is devoted to questions recalling the reader's own adolescence. For example in the chapter "The World of the Adolescent," one finds the following questions: "In what way were you a typical teen-ager in your adolescence?" "Have you changed greatly since your high school days in your aspirations?" etc. The "Reminiscences," together with topics suggested for discussion, make this book an excellent guide for discussion groups both of adolescents and adults.

Many aspects of adolescence are treated; these include physical development, social and personal adjustment, the ideals of adolescence, vocational problems, the adolescent and his home, adolescent delinquency, the adolescent and the community. There is a substantial amount of material, together with a good bibliography of the relevant literature.

While the introduction states that the book is devoted to the adult in general, the bulk of the suggestions is directed to teachers. This is probably due to the fact that both authors are on the faculty of the Indiana State Teachers College. The focusing on the teacher, however, seems overstressed; first, because parental influences and other extra-school influences by far outweigh the school's, and second, because the unfortunately subordinate position occupied by the teacher in today's society prevents him from adequately fulfilling his role. Therefore the many points raised on what the teacher should do, while in themselves excellent, must remain academic till a basic change occurs in the relation between the school and the community. As long as the executive, junior or senior, remains the ideal of the good life, such a change seems unlikely. Does the striking absence of any mention of learning among the aims of the "good school," in a book in which both school and ideals are heavily weighted, derive from this latter attitude?

The ideals that an adolescent should have and how to help him achieve them receive thorough treatment. Similarly, the ideals of teachers and community in connection with adolescents are likewise stressed. In this regard a curious and common error creeps in. By dint of stressing ideals, the "ought" for the adolescent and the adult, we add to the prevalent insecurity. What should be a natural end-product of good living becomes something to be achieved through striving. "The teacher should have an ideal of emotional maturity toward which he will strive." This topic, however, leads into the possible conflict between individual health and social "health" and is beyond the stated scope of the book.

All in all, this book is a valuable contribution to parents, teachers, and social workers.

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Children of Divorce. By *J. Louise Despert, M. D.* (Garden City: Doubleday, 1953. Price: $3.50.)

In this remarkable book the author, who has had wide experience in child psychiatry, addresses herself to parents who are contemplating divorce and to those who actually have been divorced. It is a direct and eloquent appeal that the emotional needs of children of those parents should not be forgotten in the "forest of marital problems." Since the book is intended for lay people, technical terminology is kept at a bare minimum. It is well written, and the author's various points are logically made in a most interesting manner.

This is one of the first works in a heretofore neglected field, and it should be of prime interest to those dealing with marital difficulties. The author coins the phrase "emotional divorce" which is most descriptive. She points out that in many cases couples remain together "for the sake of the children," when in reality they are providing a most destructive situation as far as the emotional development of those children is concerned and that an actual divorce might be preferable. She makes an eloquent appeal that children should not be used as "pawns" by one parent against the other in attempting to seek some advantage or to embarrass the estranged partner. All children need the love and affection of both parents even after divorce. Therefore, intelligent parents who are contemplating divorce and who have the best interests of their children at heart will stress the strong points of each other and do nothing to jeopardize the love of the children for either of them. In return, the parents will be amply repaid in terms of love and respect for the children.

The author utilizes the case history method to exemplify her various points. The cases which she has selected are excellent examples. The last chapter, "Love is Enough," is an actual family history which clearly indicates that love and emotional security provided by parents are far more important than financial and material security which is devoid of those two necessary ingredients for proper emotional development of children.

The author stresses the inadequacies of many courts in both their organization and practices, and she makes an eloquent and logical plea for uniform divorce laws and courts which would provide for the emotional needs of the children and not for the "delinquent" parents.

The reviewer wonders however, how many parents, undergoing the emotional upheaval of contemplated or actual divorce proceedings, would be able to read this excellent book quietly and act intelligently on the principles offered in it, without professional help. We must agree, however, that if only a few children benefit then the effort would be eminently worthwhile.

In conclusion, the reviewer believes that this book is a very important contribution in the largely neglected field of "Children of Divorce." It will be considerable help to those engaged in the fields of child psychiatry and marriage counseling.

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Encyclopedia of Aberrations. Edited by *Edward Podolsky, M. D.* (New York: Philosophical Library, 1953. Price: $10.00.)

"This book is so full of a number of things,
Its readers should all be as happy as kings."

But Alexandra Adler, who wrote the foreword seemed to have her misgivings.

To begin with, the designation "Encyclopedia" is used too confidently. The word "encyclopedia" implies all-inclusiveness, exhaustive treatment of a subject. This book is not that, despite its 550 double-column pages. On the contrary, it is preponderantly selective. As Dr. Adler gently complains: "The large field of the neuroses and related sexual aberrations is defined and presented by articles based on the Freudian school of psychoanalysis and the papers reprinted from journals of this school. Representatives of others schools . . . undoubtedly would have chosen a different terminology and would have selected different original papers for information on this subject matter . . . a different volume would have to be printed to do justice to all the various systems of psychology." We merely quote these remarks of Mr. Adler as indicating that the "Encyclopedia" is a one-sided compilation and not a comprehensive and balanced survey of the broad, many-sided field of psychiatry. It cannot therefore be recommended as "a psychiatric handbook," although the title page asserts that it is.

There is a *uralte Idee* that the brain is an organ that has something to do with the mind and that brain lesions have relation to certain mental disorders. Accordingly one would expect to find that a psychiatric handbook would include the organic psychoses that are so integral a part of the field. They are not in this book. Dementia paralytica, Huntington's chorea, brain tumor, arteriosclerosis, multiple sclerosis, senile disorders such as Pick's disease and Alzheimer's disease are not even listed. There is no mention of mental deficiency or any of its varieties although moronic geniuses are discussed, including a sketch of the career of that extraordinary nineteenth-century musical prodigy, the Negro, Blind Tom.

Curiously enough, although neurotic reactions are considered under numerous other headings, they are not shown under their common names where the student might look for them in the alphabetical order of this book. With the exception of a half-page on "Hysteria as a Conditioning Process," there is no listing of neurasthenia, psychasthenia, psychalgia, globus hystericus, and various other terms denoting neurotic phenomena. Even the words neurosis and psychoneurosis do not appear in their alphabetical places. However, anxiety states and phobias are dealt with at some length and obsessive-compulsive states are mentioned.

Many other terms that one would expect to find at least set down in their places and defined are missing, *e.g.*, verbigeration, Korsakoff's syndrome, *déja vu*, nymphomania, satyriasis, presbyophrenia, phantom limb (mentioned under Body Image Disturbances), hypnagogic phenomena (under Waking and Sleeping Intermediary States). There is a partial account of hallucinations but the term "delusions" is not listed and there is therefore no discussion of the several symptom types under that head. In a good many places cross-references would materially assist the student to find what he is looking for. If he is interested in lycanthropy he will find a 2-line definition and perhaps not discover that under Therianthropy there is a 4-page discussion of the subject. Pseudolalia is here but not pseudologia. The latter along with the other forms of falsification will be found in Ben Karpman's interesting 12-page discussion of Lying.

Among other excellent features may be mentioned Katzenelbogen's article on Dementia Praecox; John D. Campbell's section the Manic-Depressive Psychosis which deals in considerable detail with depressive states; Roger J. Williams' study of the Etiology of Alcoholism; Jenkins' discussion of the Schizophrenic Process; Mintz' analysis of Group Behavior; Diethelm's article on Psychopathic Personality; Leavitt's review of Juvenile Delinquency. There are also somewhat detailed contributions on the common drug addictions. These longer articles are reprinted from the periodical literature, quite a number also from the *Handbook of Correctional Psychology*.

There are not a few oddities among the topics listed. We have the Psychology of Nudism. Next door is Nun's Melancholy (including case reports of 4 Catholic nuns—7 pages). There are 11 pages on Hair Plucking. Then we come to Post-orgastic Emptiness, which we learn is a specific form of "horror vacui" (No emptiness in the exposition—9 pages).

The reviewer has perused the volume with much interest and found it somewhat difficult to arrive at an equitable appraisal. The *Encyclopedia of Aberrations* is indeed an unusual and considerable assemblage of material, even if it isn't exactly an encyclopedia.

C. B. F.

DICTIONARY OF PSYCHIATRY AND PSYCHOLOGY. By *William H. Kupper, M.D.* Patterson, N. J.: The Colt Press, 1953. Price: $4.50.)

This slender volume of 194 pages is described fairly enough in its subtitle as "An Illustrated Condensed Encyclopedia of Psychiatry, Neurology and Psychology." It is much more entitled to be called an encyclopedia, however miniature, than is the volume reviewed just preceding this one.

In this dictionary definitions are laconic: trauma = "injury"; some seem hardly necessary: prenatal = "before birth"; some do not convey much meaning: stigmata = "marks or signs of"; occasionally there is careless proofreading: ethic = "pertaining to the races of mankind." For the most part however, the statements contain much in little, and major topics are treated in reasonably long outline; dementia praecox, for example, nearly 4 pages including tables of results of treatment.

The Dictionary covers the field of neurology and psychosomatics, the commoner manifestations of which are listed. The physiology of the nervous system is sketched in 3½ pages; the various reflexes are described; and there are diagrams of the brain, spinal cord, cerebral circulation, nerve tracts, even the bones of the skull along with a discussion of skull fracture.

Many of the entries include references for wider reading. These are generally good; in some cases key sources are missed: suicide references lack Durkheim; those on hypnotism lack Braid who coined the term.

An interesting feature is the treatment of the phobias. Not only are the scientific terms entered each in its proper place, but the English equivalent will also be found in its alphabetical order. Thus if you are writing about the morbid fear of dogs but can't remember what it is in Greek, just look up "dog-fear" and there it is—"cynophobia."

The Dictionary contains a number of topics that one might not expect to find in such a work, especially in one of so small compass, but which are valuable for reference. Under the entry "hospitals" are listed by states alphabetically the state hospitals for mental disease in the United States. There are also 5 pages of mental hospital statistics for a 10-year period (1939-1948). Under "journals, psychiatric and psychological" will be found the titles and publication headquarters addresses of the American journals and a considerable number of the foreign ones. Under "poisoning" most of the common forms of poisoning are set down together with treatment indications.

In a 2-page item, "history of psychiatry," some of the highlights from prehistoric times are mentioned. Needless to say the outline is sketchy. It closes however with the comforting statement: "At the present time, the physics and chemistry laboratories have replaced speculation and promise many dramatic and new discoveries."

There are brief biographical entries concerning notable persons in the psychiatric and related fields. To be quite up-to-date the Dictionary has a statement on cybernetics, with references. And for good measure, there is a plentiful sprinkling of slang terms and underworld argot for the enrichment of our impoverished psychiatric vocabulary.

C. B. F.

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